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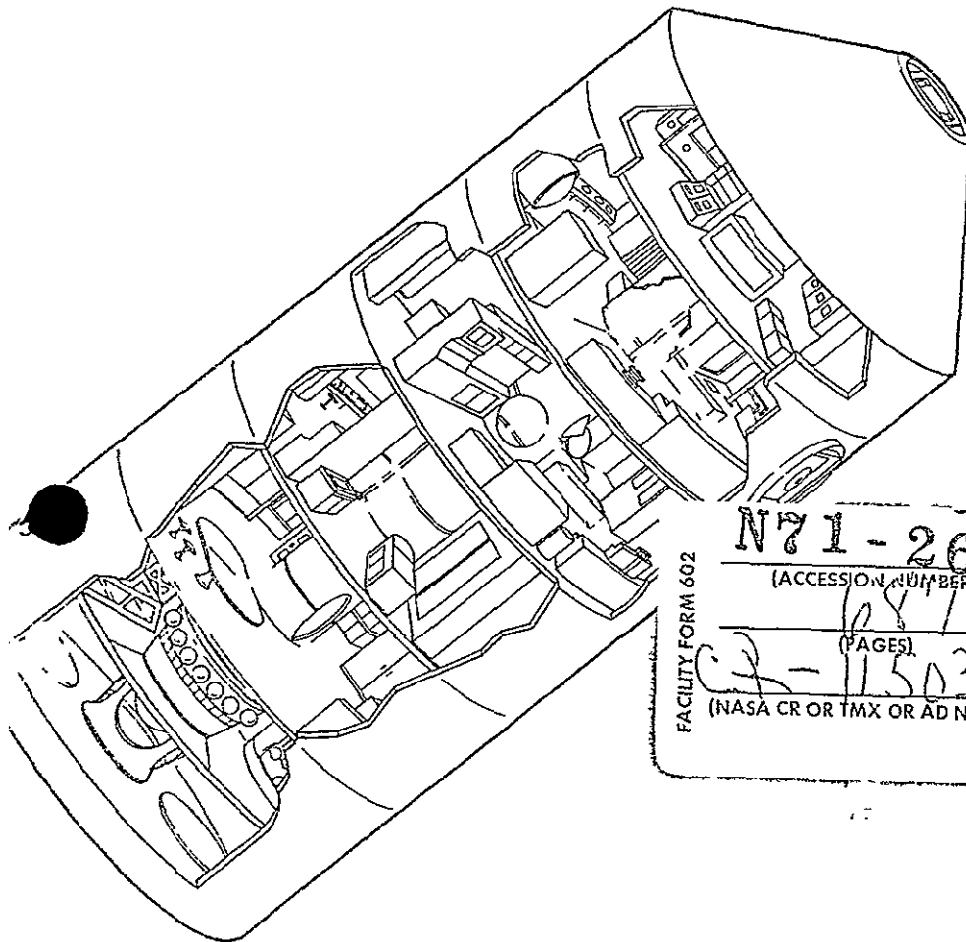
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HOUSEKEEPING CONCEPTS FOR
MANNED SPACE SYSTEMS

DATA BOOK - VOLUME III
WASTE CONTROL SEARCH/REPORT
COMPUTER PROGRAM

Prepared for

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NATIONAL AERONAUTICS and SPACE ADMINISTRATION

Manned Spacecraft Center
Houston, Texas 77058

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Prepared By
Manned Space Systems



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ABSTRACT

This Data Book contains parametric data on the Waste Control aspects of Housekeeping for future manned orbital spacecraft. The data is intended for use by the mission planner, the spacecraft conceptual designer and the equipment designer. The contents cover

- Identification of Waste Products, Rates of Generation and Constraints

Approximately 220 potential waste sources, i.e., personnel life support functions, subsystem equipments and potential experiments, were identified. Study of these waste sources identified 1500 waste items, their constituents, rates of production and interfacing information for handling and processing.

- Utilization Processes

Utilization processes are those potentially capable of converting waste into useful onboard consumables/expendables in lieu of logistical resupply. Both existing systems and basic processing concepts useful as building blocks are discussed.

- Pretreatment Processes for Disposal

Conceptual designs and parametric data are presented for treatment of normal organic and potentially pathogenic waste for deactivation or sterilization. Concepts for the compaction and packaging of deactivated wastes are presented.

- Waste Disposal

Conceptual designs and parametric data are presented for separating wastes from the spacecraft. These include the use of the shuttle with resupply/disposal modules, rocket launch for incineration in the earth's atmosphere or alternate earth and sun orbits, and overboard jettisoning.

- Waste Control and Housekeeping

Manual and automated concepts of waste collection, pickup, transfer and sorting for interfacing with utilization or disposal processing equipment are presented. The rationale for preparation of crew task and time line information as influenced by partial and zero gravity is developed. In addition, background human factors information for space flight is discussed.

- Search/Report Computer Program

Because of the magnitude of the information generated, a computer program with updated and search capabilities was developed.

The Data Book is divided into three volumes and, because of the magnitude of the information presented, Volume II into two books. Their contents are as follows

VOLUME I - WASTE CONTROL - TASKS AND SYSTEM CONCEPT

This volume contains the basic results of the study except for the backup data on the definition of wastes.

VOLUME IIA and IIB - WASTE DEFINITION

Volume II contains the definition of waste products and the backup information.

VOLUME III - WASTE CONTROL SEARCH/REPORT COMPUTER PROGRAM

This volume contains a brief description of the organization of the data, a complete printout of the data, and a description with examples of the search and retrieval capabilities provided.

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INTRODUCTION

0 0 INTRODUCTION

The computer program which has been developed to store and process the available data on spacecraft waste control is described in Volume 1, Section 7, a detailed description of the program is contained in the User's Manual (F/H Report MS 124Y0005). This volume of the Data Book contains a brief description of the organization of the data, a complete printout of the data, and a description of the search and retrieval capabilities provided.

The data contained in Sections 1 0, 2 0 and 3 0 was derived entirely from the material in Volume II, which consists of information relating to waste materials properties and generation. Future versions of this book will incorporate, in addition, data from the areas of waste handling, and processing and disposal procedures and processes. The computer programs have been developed so as to easily adapt to these extensions.

0 1 DATA CHARACTERISTICS

0 1 1 Data Structure

The data in storage is collected into large logical groups. This arrangement affords rapid processing during searches and updating by retrieving and/or storing in the computer core by one operation, not only the desired item, but all data directly associated with it.

Table 0-1 shows the structuring of the data on waste generation in a hierarchical manner. The fundamental element by which spacecraft waste sources have been grouped has been taken to be the spacecraft subsystem or laboratory. The data is generally organized within each subsystem/laboratory structure in a manner analogous to that employed in Volume II, two exceptions are the "functional requirement" and "basic function", which are treated as auxiliary data to the specific subsystem or laboratory.

TABLE 0-1
DATA STRUCTURE
WASTE GENERATION FILE

1. Subsystem/Laboratory
 2. Name
 2. Functional Requirement
 2. Basic Function
 2. Experiment/Equipment (*)
 3. Name
 3. Area Name (*)
 3. Associated FPE
 3. Waste Source (*)
 4. Name
 4. Document Reference
 4. References (*)
 4. Waste Item (*)
 5. Name
 5. State
 5. Density (Average)
 5. Attributes
 5. Elements Present
 5. Composition
 5. Generation Data (*)
 5. Reclamation Action

* - Data which may contain more than one item

The next level corresponds to division of data within a given subsystem or laboratory into a number of experiments (processes) or pieces of equipment so specified as to completely encompass all proposed spacecraft subsystems. The associated area name(s) of the spacecraft and the FPE number (in the case of the experiments) are also stored at this level. Each experiment or equipment is then broken down into a number of possible waste sources. Reference is given, by number, to the operational description document of Volume II for detailed engineering discussion.

Table 0-1 gives, at the lowest level, the specific data which is stored for a given waste item. The nature of each item is discussed individually in the paragraphs below.

0 1 1 1 State

This data is in keyword form so as to permit search and retrieval, and uses the three basic words

SOLID, LIQUID or GAS.

0.1 1 2 Density (Average)

Waste material average density in lbs/cu. ft. is stored as numerical data, so as to permit data search on magnitude.

0 1 2 3 Attributes

Keyword storage of characteristics of the waste materials of significance to spacecraft housekeeping and waste management is used in this category. The keywords fall into three principal categories

- Material type, eg metal, plastic, glass, textile, paper, acid, alkali, oil, water, colloid, suspension, gel, etc.
- Form factor, eg flexible, rigid, sheet, rod, tubular, spongy, bulky, loose granuals, sharp, brittle, semi-liquid, slurry, highly dense, etc.
- Constraints, eg toxic, pathogenic, contaminated, noxious odor, explosive, unstable, radioactive, organic, hot, cold, dusty, smoky, condensable, etc.

0 1 1 4 , Elements Present

The standard chemical symbols for the principal elements present as well as any trace elements of special interest are stored in this category, with each element separated by a comma.

0 1 1 5 Composition

The principal constituents are identified by common material names, compound names or, in some cases, by chemical formula.

0 1 1 6 Generation Data

The "Generation Data" category contains numerical tabular data on specific quantity or rate of waste mass generation. The current version of the data file contains three entries for each waste item, the units being dependent on the basic spacecraft function as follows:

TABLE 0-2
WASTE GENERATION UNITS

<u>Basic Function</u>	<u>Units</u>	<u>Q (1)</u>	<u>Q (2)</u>	<u>Q (3)</u>
Support Life	lbs/year	/12 men	/50 men	/100 men
Maintain S/C Functions	lbs	/10 yr	/day	/unit
Perform Mission Tasks	lbs	/expt.	/day	/batch

Further explanation of the reasons for this representation of waste generation quantities is given in Volume IIA, para. 0.4.2.3.

0 1 1 7 Reclamation Action

This data item contains, where applicable, a short phrase describing actions necessary to restore the waste material to reuse in its original function.

0.2 DATA SEARCH AND RETRIEVAL

0.2.1 Program Description

Search and retrieval capability for specific items or groups of items satisfying given conditions is the key to use of the data file for optimization (trade-off) studies, development of procedures, etc. An initial version of a program for this purpose has been developed for processing the waste generation data. This program permits retrieval of lists of data elements satisfying specified criteria from the information contained in the data files. Any number of searches can be performed on a given computer run. The program permits selection of the following logical connections between the search criteria or keywords

- a) $(K_1) \text{ AND } (K_2) \text{ AND } \dots \text{ AND } (K_{10})$
- b) $(K_1) \text{ OR } (K_2) \text{ OR } \dots \text{ OR } (K_{10})$
- c) $((K_1) \text{ AND } \dots (K_{10})) \text{ OR } ((K_1') \text{ AND } \dots (K_{10}')) \text{ OR } \dots \text{ up to 10 times}$
- d) $((K_1) \text{ OR } \dots (K_{10})) \text{ AND } ((K_1') \text{ OR } \dots (K_{10}')) \text{ AND } \dots \text{ up to 10 times}$

Thus a quite flexible and extensive logical search capability is provided.

For a particular search, the files desired, the keywords and associated data elements to be searched, and logical control data are input in card form. Search is accomplished by reading in succession each record of the desired files and testing for matches between the contained data and the desired values (search keys). When a hit is made, the data is printed on a Search Report.

The purpose of the report format at the present stage of program development is to provide sufficient data for each hit that a definitive reference to the data book file printout is provided, through this reference, any other desired information about the located items may be obtained manually. This reference is provided by giving the major indentation identifiers of the data structures, for example, in the waste generation file, the spacecraft subsystem, equipment/experiment name, the waste source name, and the waste item name. In addition the waste quantity tables are printed.

0.2.2 Data Search Examples

The program output sheets from eight sample searches of the waste generation file

are presented in Tables 3 through 10. The keywords and logic were selected so as to demonstrate the general program capability. They provide lists of all waste items which satisfy the following criteria

<u>Search No.</u>	<u>Table</u>	<u>Search Question</u>
1	3	Material contains water
2	4	Material is generated in kitchen <u>or</u> dining area or snack bar
3	5	Material is contaminated or pathogenic
4	6	Material is generated in Bio-Laboratory <u>and</u> is solid
5	7	Material contains Fe <u>and</u> Cu
6	8	Material contains Fe <u>or</u> Cu
7	9	Material originates in man-oriented functions <u>and</u> exceeds 100 lbs/year for a 100 man station <u>and</u> is either contaminated or pathogenic <u>and</u> is either textile or paper material.
8	10	Material is solid and requires cleaning for reclamation <u>or</u> is textile and requires laundering for reclamation.

The output for each search specifies the logic used, the keywords together with an identifier and a description of the data type with a program address vector. A list of the retrieved waste items follows, together with key data for locations of ancillary data in the data file printout (Sect. 1, 2 or 3), data on which keywords are associated with the retrieval, and the associated waste quantity data.

TABLE 0-3 SEARCH REPORT #1 - MATERIAL CONTAINS WATER

SEARCH NO 1

THE SEARCH HAS USED ' NULL ' LOGIC ON THE FOLLOWING KEYWORDS

'OR' ITEM	'AND' ITEM	KEYWORD	VECTOR
1	1	WATER (COMPOSITION)	13

THE FOLLOWING ITEMS WERE RETRIEVED

KEYWORD NO	GROUP KEY	EQUIP./FXPT NO	WASTE SOURCE NO.	WASTE ITEM	QUANTITIES		
					12 MFN	50 MFN	100 MFN
*	1.1 3	1	1	AUTOCCLAVE WASTE WATER	50 00	183 00	183.00
*	1 1 4	1	1	WATER	840 00	3360 00	6720 00
*	1 3 1	1	1	WATER	41 00	170 00	340 00
*	1 3.1	1	2	WATER	41.00	170 00	340 00
*	1 3.1	1	3	WATER	41 00	170 00	340.00
*	1 3 2	1	1	WATER SPILLED AND NOT DRUNK 10 PERCENT	1007 00	4200 00	8400.00
*	1 3 4	2	1	WATER	8520 00	0 00	34000.00
*	1 4 1	1	1	VAPORIZED PRODUCTS	1022 00	4258.00	8550.00
*	1.4 2	1	1	CONTAMINATED WASH WATER	37440 00	156000.00	312000.00
*	1 4 2	1	2	DIRTY WASH WATER	18720.00	78000 00	156000.00
*	1 4 2	1	3	USED WASH WATER	2190 00	9125 00	18250 00
*	1 4 3	1	1	DIRTY WATER	5615 00	23370 00	46740 00
*	1 4 4	1	1	WASH WATER	143000 00	600000.00	1200000 00
*	1.4 5	2	1	USED WASH WATER AND BACTERICIDE	315 00	1313 00	2626 00
					10 YR. TOTAL DAILY RATE UNIT WEIGHT		

*	2 3.1	1	1	WATER	300 00	0 00	7.50
					FXPT TOTAL DAILY RATE BATCH SIZE		

*	3.4 1	1	2	AUTOCCLAVE WASTE WATER	45 00	0 50	0.00
*	3 4.2	7	1	WATER	0.00	0.00	0.00
*	3 4 3	4	1	MACERATED TESTES ROT TLF	0 02	0 00	0 02
*	3 4 4	2	1	WATER VAPOR	0 40	0.01	0 01
*	3 4 5	1	1	WASTE WATER	3.00	0 01	0 01
*	3 4.5	1	1	URINE	3000 00	10 00	10.00
*	3 4 5	2	1	WASTE WATER	2 00	0 01	0 01
*	3 4 5	2	1	URINE	576 00	2.40	2 40
*	3 5 1	1	3	URINE	180.00	0.50	0 50
*	3 5 1	1	3	WASTE WATER	10.00	0 03	0 03

TABLE 0-3 (Cont'd)

*	3.5 1	2	2	URINF	73.50	0.00	1.26
*	3.5.1	2	6	WASTE WATER	7 00	0.07	0.07
*	3.5 1	2	6	URINF	50 00	0 14	0.14
*	3.5.1	2	10	URINF	2.00	0 14	0.14
*	3 5 1	2	10	WASTE WATER	0 40	0.02	0 02
*	3 5 1	2	13	URINF	40 00	0 10	0 10
*	3 5 1	2	14	WASTE WATER	4 00	0 02	0 02
*	3.5 1	2	14	URINF	10 00	0 04	0 04
*	3 5 1	3	4	WASTE WATER	0 50	0 04	0 04
*	3 5 1	3	4	URINF	0 01	0.01	0.01
*	3.5 1	3	5	WASTE WATER	0.05	0.00	0 00
*	3.5.1	3	5	URINF	0.00	0.00	0.00
*	3 5 1	3	6	WASTE WATER	0 50	0 04	0 04
*	3 5 1	3	6	URINF	0 01	0 01	0 01
*	3 5 1	4	2	R/A URINE	600 00	0 00	6.00
*	3 5.1	4	2	UPINE	800 00	0 00	4 00
*	3 5 1	4	3	URINE	7 00	0 00	1 40
*	3 5.1	4	4	WASTE WATER	0 50	0.02	0 02
*	3.5 1	4	4	UPINF	0.01	0.01	0 01
*	3.5 1	5	2	URINF	4.00	0.00	0 07
*	3 5 1	5	3	URINF	4 00	0 00	0 06
*	3 5 1	5	4	URINF	4 00	0 00	0 07
*	3.5.1	5	4	URINF	4 00	0 00	0 08
*	3 5 1	5	5	URINF	4.00	0 00	0 08
*	3.5 1	5	6	URINE	4 00	0 00	0.08
*	3 5 1	6	1	BLOOD	4.00	0 00	0 07
*	3 5 1	6	1	URINF	6 00	0.00	0.11
*	3 5 1	6	2	WATER WASTE	6.00	0 00	0.14
*	3.5 1	6	3	WATER WASTE	3 00	0 00	0.07
*	3 5 1	6	4	BLOOD	2 00	0 00	0.03
*	3 5 1	6	4	URINF	50 00	0 00	0.89
*	3 5.1	6	5	WATER WASTE	1 00	0 00	0 16
*	3 5 1	7	1	BLOOD	2.00	0 00	0 03
*	3 5 1	7	1	URINF	50.00	0.00	0 89
*	3 5 1	7	2	BLOOD	2.00	0.00	0 03
*	3 5 1	7	3	URINE	25.00	0 00	0 40
*	3.5 1	7	3	WATER WASTE	10.00	0 00	0 19
*	3 5 1	7	4	WATER WASTES	10 00	0.00	0 20
*	3.5.1	8	5	WATER WASTE	0 15	0.00	0.01
*	3.5 1	8	6	WATER WASTE	0 60	0 00	0 12
*	3 5 1	8	7	WATER WASTE	12 00	0 00	0.30
*	3 5 1	9	1	AUTOCLAVE WASTE WATE	183 00	0 50	0.00
				R			
*	3.5 2	2	4	WATER (SUIT COOLANT)	4 00	0 00	2 00
*	3 5.2	2	4	WATER (FORMED)	0 65	0.00	0 03
*	3 6.2	1	1	WATER	125 00	0 00	0.00
*	3.6.2	1	1	WATER	625.00	625 00	125 00

TABLE 0-4
SEARCH REPORT # 2 - MATERIALS GENERATED IN
KITCHEN, DINING AREA OR SNACK BAR

SEARCH NO. 2

THE SEARCH HAS USED ' OR ' LOGIC ON THE FOLLOWING KEYWORDS

'OR' ITEM	'AND' ITEM	KEYWORD	VECTOR
1		KITCHEN (AREA)	2
2		DINING AREA (AREA)	2
3		SNACK BAR (AREA)	2

THE FOLLOWING ITEMS WERE RETRIEVED

KEYWORD NO	GROUP KEY	EQUIP /FXPT NO	WASTE SOURCE NO.	WASTE ITEM	QUANTITIES		
					12 MEN	50 MEN	100 MEN

1	1 3 1	1	1	FFRON	10.00	42.00	84.00
1	1 3 1	1	1	LIGHT BULBS	0.15	0.61	1.21
1	1.3 1	1	1	SPENT PARTS	4.00	8.00	16.00
1	1 3.1	1	1	WATER	41.00	170.00	340.00
1	1 3.1	1	1	FOOD IN PKG.	7.80	32.60	65.30
1	1.3 1	1	2	LIGHT BULBS	0.15	0.61	1.21
1	1 3.1	1	2	WATER	41.00	170.00	340.00
1	1 3 1	1	2	FOOD IN PKG.	7.80	32.60	65.30
1	1.3 1	1	3	LIGHT BULBS	0.15	0.61	1.21
1	1 3 1	1	3	WATER	41.00	170.00	340.00
1	1 3 1	1	3	FOOD IN PKG.	7.80	32.60	65.30
1	1 3 1	2	1	FOOD IN PKG.	8.40	34.90	69.80
1	1.3.1	2	1	LIGHT BULBS	0.15	0.61	1.21
1	1.3 2	1	1	FOOD IN PACKAGE .5 PERCENT	45.50	188.00	375.00
3	1 3 2	1	1	FOOD IN PACKAGE .5 PERCENT	45.50	188.00	375.00
1	1.3 2	1	1	WATER SPILLED AND NOT DRUNK 10 PERCENT	1007.00	4200.00	8400.00
3	1.3 2	1	1	WATER SPILLED AND NOT DRUNK 10 PERCENT	1007.00	4200.00	8400.00
1	1 3 2	1	2	SPOILED FOOD IN PKG	136.50	570.00	1140.00
3	1.3.2	1	2	SPOILED FOOD IN PKG.	136.50	570.00	1140.00
1	1 3 2	1	2	MAGNETRON TUBE	2.10	4.20	7.00
3	1 3.2	1	2	MAGNETRON TUBE	2.10	4.20	7.00
1	1 3 2	2	1	PACKAGING	18.00	77.00	165.00
1	1 3.2	2	1	ATTACHED FOOD .5 PERCENT OVERALL	14.50	61.00	122.40
1	1 3 2	2	1	WIPES(TOWEL)4/DAY/12 MAN CREW 10% WASTE	0.00	0.00	0.00
1	1.3.2	2	1	FLEX. DRINKING DEVICE TIPS	0.37	1.56	3.12
1	1 3.2	2	1	SPILLED FOOD 3 PERCENT	87.00	366.00	730.00

TABLE 0-4 (Cont'd)

				NT			
2	1 3.3	1	1	SPILLED FOOD	100.00	460.00	920.00
2	1 3.3	1	1	DISINFECTANT SOL	52.00	220.00	440.00
2	1 3.3	1	1	PACKAGE FOR DISINFECTANT	1.75	7.00	14.00
				UNFATEN FOOD	2780.00	11600.00	23200.00
2	1 3.3	2	1	UNEATEN FOOD	2780.00	11600.00	23200.00
3	1 3.3	2	1	NAPKINS (LINEN)	42.00	175.00	350.00
2	1 3.3	2	1	NAPKINS (LINEN)	42.00	175.00	350.00
3	1 3.3	2	1	SPILLED FOOD	100.00	460.00	920.00
2	1 3.3	2	1	SPILLED FOOD	100.00	460.00	920.00
3	1 3.3	2	1	SPILLED FOOD	100.00	460.00	920.00
1	1 3.4	1	1	FILTER UNIT, CLOGGED	2.60	10.80	21.60
2	1 3.4	1	1	FILTER UNIT, CLOGGED	2.60	10.80	21.60
3	1 3.4	1	1	FILTER UNIT, CLOGGED	2.60	10.80	21.60
1	1 3.4	1	1	DEBRIS PKG. FILLED WT TH DEBRIS	10.90	43.70	87.40
2	1 3.4	1	1	DEBRIS PKG. FILLED WT TH DEBRIS	10.90	43.70	87.40
3	1 3.4	1	1	DEBRIS PKG. FILLED WT TH DEBRIS	10.90	43.70	87.40
1	1 3.4	1	1	PACKAGE TIE, REUSABLE	2.55	9.50	19.00
2	1 3.4	1	1	PACKAGE TIE, REUSABLE	2.55	9.50	19.00
3	1 3.4	1	1	PACKAGE TIE, REUSABLE	2.55	9.50	19.00
1	1 3.4	1	1	SCRAPER, WORN	0.40	0.80	1.60
2	1 3.4	1	1	SCRAPER, WORN	0.40	0.80	1.60
3	1 3.4	1	1	SCRAPER, WORN	0.40	0.80	1.60
1	1 3.4	1	1	COLLECTED FOOD WASTE	100.00	460.00	920.00
2	1 3.4	1	1	COLLECTED FOOD WASTE	100.00	460.00	920.00
3	1 3.4	1	1	COLLECTED FOOD WASTE	100.00	460.00	920.00
1	1 3.4	1	1	VACUUM CLEANER TIPS, WORN	0.80	1.60	3.20
2	1 3.4	1	1	VACUUM CLEANER TIPS, WORN	0.80	1.60	3.20
3	1 3.4	1	1	VACUUM CLEANER TIPS, WORN	0.80	1.60	3.20
1	1 3.4	1	2	WIPES	51.20	235.00	412.00
2	1 3.4	1	2	WIPES	51.20	235.00	412.00
3	1 3.4	1	2	WIPES	51.20	235.00	412.00
1	1 3.4	1	2	BAGS OF WASTED FOOD	3165.00	13251.00	26500.00
2	1 3.4	1	2	BAGS OF WASTED FOOD	3165.00	13251.00	26500.00
3	1 3.4	1	2	BAGS OF WASTED FOOD	3165.00	13251.00	26500.00
1	1 3.4	1	2	GLOVES	11.00	44.00	88.00
2	1 3.4	1	2	GLOVES	11.00	44.00	88.00
3	1 3.4	1	2	GLOVES	11.00	44.00	88.00
1	1 3.4	1	2	SCRAPER	0.40	0.80	1.60
2	1 3.4	1	2	SCRAPER	0.40	0.80	1.60
3	1 3.4	1	2	SCRAPER	0.40	0.80	1.60
1	1 3.4	1	2	NOZZLE, VACUUM PICKUP	0.80	1.60	3.20
2	1 3.4	1	2	NOZZLE, VACUUM PICKUP	0.80	1.60	3.20
3	1 3.4	1	2	NOZZLE, VACUUM PICKUP	0.80	1.60	3.20
1	1 3.4	2	1	FOOD DEBRIS	278.00	1160.00	2320.00
1	1 3.4	2	1	DETERGENT	40.50	17000.00	162.00
1	1 3.4	2	1	WATER	8520.00	0.00	34000.00
1	1 3.4	3	1	FILLED WASTE LINERS	8.00	32.50	65.00
2	1 3.4	3	1	FILLED WASTE LINERS	8.00	32.50	65.00
3	1 3.4	3	1	FILLED WASTE LINERS	8.00	32.50	65.00

TABLE 0-5 SEARCH REPORT #3 - MATERIAL IS CONTAMINATED OR PATHOGENIC

SEARCH NO. 3

THE SEARCH HAS USED ' OR ' LOGIC ON THE FOLLOWING KEYWORDS

'OR' ITEM	'AND' ITEM	KEYWORD	VECTOR
1		CONTAMINATED (ATTRIBUTE)	11
2		PATHOGENIC (ATTRIBUTE)	11

THE FOLLOWING ITEMS WERE RETRIEVED

KEYWORD NO	GROUP KEY	EQUIP NO.	/EXPT NO.	WASTE SOURCE NO	WASTE ITEM	QUANTITIES		
						12 MEN	50 MEN	100 MEN

1	1.1 1	1	1	1	TONGUE DEPRESSOR	0.52	2.60	5.20
1	1.1.1	1	1	1	THERMOMETERS	1.30	6.50	13.00
1	1.1 1	1	1	1	SHEETS	7.76	38.80	77.60
1	1.1 1	1	1	1	PACKAGING MATERIAL	0.52	2.60	5.20
1	1.1 1	2	1	1	MEDICATION TUBES	7.30	14.60	21.90
1	1.1.1	2	1	1	SPRAY BOTTLES	0.48	8.00	14.60
1	1.1.1	2	1	1	DISPOSABLE FACE MASK S	3.65	7.30	10.95
1	1.1 1	2	1	1	PILL BOXES	3.65	7.30	10.35
1	1.1 1	2	1	1	MEDICATION BOTTLES	0.20	2.00	3.65
1	1.1 1	2	1	1	BAND AIDS	0.03	0.08	0.16
1	1.1 1	2	1	1	DEPRESSINGS AND ADHESIVE S	0.00	0.02	0.08
1	1.1.1	2	1	1	CATHETER	0.00	0.00	0.05
1	1.1 1	2	1	1	ANTISEPTIC SOLUTION	0.04	0.12	0.48
1	1.1.1	2	1	1	SPLINT	0.00	0.00	0.10
1	1.1 1	2	1	1	GLOVES	0.24	0.60	1.04
1	1.1 1	2	1	1	EYE PATCHES	0.04	0.40	1.03
1	1.1 1	2	1	1	PACKAGING	0.75	2.00	3.65
1	1.1 2	1	1	1	DENTAL PROBE	1.56	15.60	31.20
1	1.1 2	1	1	1	DENTAL MIRROR	0.26	26.00	52.00
1	1.1.2	1	1	1	EXTRACTION PLIERS	0.00	0.00	0.20
1	1.1 2	1	1	1	SCALPEL	0.00	0.00	0.06
1	1.1.2	1	1	1	DRUG AND BOTTLE	0.04	0.12	0.16
1	1.1 2	1	1	1	ANAESTHETIC BOTTLE	0.00	0.00	0.04
1	1.1.2	1	1	1	SYRINGE	0.00	0.00	0.01
1	1.1 2	1	1	1	HEAD REST COVERING	0.52	5.20	10.40
1	1.1 3	1	1	1	TRASH HAMPER	0.00	0.00	0.00
1	1.1 3	1	1	1	WIPES	24.00	87.60	87.60
1	1.1 3	1	1	1	AUTOCLAVE CLOTHS-WRAPPING INSTRUMENTS	2.00	7.00	7.00
1	1.1 3	1	1	1	PACKAGING MATERIAL	2.00	7.30	7.30
1	1.1.3	2	1	1	TRASH HAMPER	0.00	0.00	0.00
1	1.1 3	2	1	1	TRASH HAMPER BAGS	3.60	10.95	10.95
1	1.1.3	2	1	1	WIPES	12.00	43.80	43.80
1	1.1 3	2	1	1	AUTOCLAVE CLOTHS-WRAP	12.00	36.50	36.50

TABLE 0-5 (Cont'd)

1	1 1.3	2	1	PPING INSTRUMENTS	1 00	3.65	3 65
2	1.2 2	1	1	PACKAGING MATERIAL	428 00	1782 00	3564 00
2	1 2 2	1	1	SOILED SHIRT SHORT & LEFFV	609.00	2541 00	5082 00
2	1 2.2	1	1	SOILED TROUSERS	8 00	34.00	68 00
2	1 2 2	1	1	SOILED JACKET, LIGHT WEIGHT	440 00	1836 00	3672.00
2	1 2 2	1	1	SOILED UNDERSHORTS	440 00	1836 00	3672.00
2	1 2 2	1	1	SOILED UNDERSHIRTS	103 00	432 00	864 00
2	1 2 2	3	1	SOILED SOCKS (PAIR)	39.60	160 80	321 60
2	1.4 1	1	1	ABSORBENT WIPES	51 90	216 30	432 50
2	1 4 1	1	1	FILTERS (ODOR CONTROL)	2 60	10 80	21 60
2	1 4 1	1	1	FILTERS (BACTERIA CONTROL)	940 00	3915 00	7795 00
2	1 4.1	1	2	WASTE CONTAINER (FIL LFN)	51.90	216 30	432 50
2	1 4.1	1	2	FILTERS (ODOR CONTROL)	1397 00	5742 00	11450 00
2	1.4 1	1	2	WASTE CONTAINER (FIL LFN)	2.60	10.80	21 60
2	1.4.1	1	3	FILTERS (BACTERIAL CONTROL)	2 60	10 80	21 60
2	1 4 1	1	3	FILTERS (BACTERIAL CONTROL)	2000 00	9333 00	16666 00
2	1 4.1	1	3	WASTE CONTAINER (FIL LFN)	240.00	1000.00	2000 00
2	1 4.1	2	1	FILTERS, FECAL AND VOMITUS COLLECTOR	25.90	109.20	216.40
2	1 4.2	1	2	USED SPONGES	150 00	627.00	1254 00
2	1 4 2	1	3	USED SPONGE HEADS	88 00	365 00	730 00
					EXPT	TOTAL DAILY RATE	BATCH SIZE

1	3 2 2	1	1	MEDIA IN TUBES	6 24	0 00	0 12
1	3 2 2	1	1	SALINE IN TUBES	9 32	0 00	0.16
1	3 2 2	1	1	SYRINGES	2 35	0 00	0 03
1	3 2 2	1	1	INOCULATING NEEDLES	0 52	0 00	0 01
1	3 2 2	1	1	POTASSIUM PHOSPHATE BUFFER CONTAINER	2 40	0 00	0 02
1	3 2 2	1	1	PACKAGING MATERIAL	1 04	0 00	0 02
1	3 4 1	1	1	CONTAINER	0 60	0 00	0 20
1	3 4 1	1	1	GROWTH MEDIUM	0 30	0 00	0 10
1	3 4 1	1	1	CANCO RED, YEAST, BOTTLE	0 12	0.00	0 04
1	3 4 1	1	1	ACETIC ACID, BOTTLE	0 12	0 00	0 04
1	3 4 1	1	1	STAIN, BOTTLE	0 12	0.00	0.04
1	3.4 1	1	1	PASTEUR PIPETTE	0 90	0 01	0 00
1	3.4 1	1	1	PIPETTE BULB	0 04	0 00	0 00
1	3 4 1	1	1	STILES-MOORE CHAMBER	1 80	0.02	0 00
1	3 4 1	1	1	PACKAGING MATERIAL	0.75	0 00	0 25
1	3 4.1	1	2	GAS RESERVOIR FLASK	0 20	0 00	0 20
1	3 4.1	1	2	GAS RESERVOIR BOTTLE	0.20	0 00	0 20
1	3.4 1	1	2	CULTURE MEDIUM BOTTLE	2 40	0 00	0.20
1	3 4.1	1	2	CULTURE FLASK	0 20	0 00	0 20

TABLE 0-5 (Cont'd)

1	3.4.1	1	2	SYRINGE	0.16	0 00	0 01
1	3 4.1	1	2	LYOPHILIZING MILK IN TUBES	24.00	0 00	0.02
1	3.4 1	1	2	PACKAGING MATERIAL	0.72	0.00	0 06
1	3.4.1	1	2	FORMALDEHYDE	0.00	0.00	0 00
1	3.4.1	1	3	LYOPHILIZED MICROORGANISMS AND TUBE MEDIA IN PLATES	0 09	0 00	0.03
1	3.4.1	1	3	SYRINGES	4.50	0.05	0 00
1	3.4.1	1	3	INOCULATING NEEDLES	0.22	0.00	0 00
1	3 4.1	1	3	PACKAGING MATERIAL	0.48	0.00	0.04
1	3.4.1	1	3	PACKAGING MATERIAL	1.80	0 02	0 00
1	3.4 1	2	1	CONTAINER	0.60	0.00	0.20
1	3.4.1	2	1	GROWTH MEDIUM	0.30	0.00	0.10
1	3.4.1	2	1	ACETIC ACID, BOTTLE	0.12	0.00	0 04
1	3 4.1	2	1	STAIN, BOTTLE	0.12	0 00	0 04
1	3 4 1	2	1	PASTEUR PIPETTE	0 90	0.01	0 00
1	3 4 1	2	1	PIPETTE BULB	0 04	0.00	0 00
1	3.4.1	2	1	STYKES-MOORE CHAMBER	1.80	0.02	0 00
1	3 4 1	2	1	PACKAGING MATERIAL	0.75	0 00	0.25
1	3.4 1	3	1	TISSUE CULTURE DISH	0 05	0.00	0 05
1	3.4 1	3	1	TISSUE CULTURE TUBES	2.40	0 00	0 20
1	3 4 1	3	1	SLIDES	0 90	0 01	0 00
1	3.4 1	3	1	FORCEPS	2 70	0.03	0 00
1	3.4.1	3	1	SCISSORS	6.30	0.07	0 00
1	3 4 1	3	1	TISSUE CULTURE MEDIA BOTTLE	2.40	0 00	0.80
1	3.4 1	3	1	TISSUE CULTURE MEDIUM REHYDRATING	2.40	0.00	0 80
1	3 4.1	3	1	STAIN AND BOTTLE	0.12	0 00	0 04
1	3 4.1	3	1	SYRINGE	1.17	0.00	0.03
1	3.4 1	3	1	TISSUE CULTURE GRID	0.00	0 00	0 02
1	3.4.1	3	1	HEAMOCYTOMETER	9.00	0.10	0 00
1	3.4 1	3	1	PACKAGING MATERIAL	2.70	0.03	0.00
1	3.4 1	3	2	SYRINGES	0 31	0 00	0 03
1	3 4.1	3	2	TISSUE CULTURE MEDIUM BOTTLE	0.60	0.00	0.20
1	3 4 1	3	2	REHYDRATING FLUID BOTTLE	0.60	0.00	0.20
1	3.4 1	3	2	FORCEPS	0.36	0.00	0.03
1	3.4.1	3	2	PACKAGING MATERIAL	0.12	0.00	0.01
1	3.4.1	4	1	PETRI DISH AND ECG SHELL	2 70	0 03	0 00
1	3.4.1	4	1	CURVED FORCEPS	2.70	0.03	0.00
7	3.4.1	4	1	STRAIGHT FORCEPS	2.70	0.03	0.00
1	3 4 1	4	1	SCISSORS	6.30	0.07	0.00
1	3 4.1	4	1	PACKAGING MATERIAL	2.70	0.03	0 00
1	3 4.1	5	1	MICROORGANISMS, TUBE, DISTILLED WATER	0 90	0 00	0.30
1	3.4 1	5	1	PHAGE, TUBE, DISTILLED WATER	1.80	0 00	0.60
1	3.4 1	5	1	MEDIA IN TUBES	12.00	0.00	1.00
1	3.4 1	5	1	MEDIA IN PLATES	6.00	0.00	0.50
1	3 4 1	5	1	INOCULATING NEEDLES	0 30	0 00	10 25
1	3 4 1	5	1	SYRINGES	0.39	0.00	0 13
1	3 4 1	5	1	LYOPHILIZING MILK IN TUBES	1.20	0.00	0 10
1	3.4 1	5	1	PAPER TOWELS	5 40	0 06	0 00

TABLE 0-5 (Cont'd)

1	3.4.1	5	1	PACKAGING MATERIAL	3.00	0.00	0.25
1	3.4.1	6	1	LYOPHILIZED NEUROSPORA, H ₂ O, TUBES	1.56	0.00	0.52
1	3.4.1	6	1	LYOPHILIZING MILK IN TUBES	1.20	0.00	0.40
1	3.4.1	6	1	MEDIA IN TUBES	4.80	0.00	0.40
1	3.4.1	6	1	SYRINGES	0.72	0.00	0.24
1	3.4.1	6	1	INOCULATING NEEDLES	0.48	0.00	0.04
1	3.4.1	6	1	PAPER TOWELS	5.40	0.06	0.00
1	3.4.1	7	1	REAGENT BOTTLES	7.20	0.00	0.16
1	3.4.1	7	1	PAPER TOWELS	5.40	0.06	0.00
1	3.4.1	7	1	COLORIMETRIC BLANKS	7.20	0.08	0.00
1	3.4.1	7	1	PACKAGING MATERIAL	0.54	0.00	0.02
1	3.4.2	1	1	YEAST SOLUTION, BOTTLE	0.12	0.00	0.04
1	3.4.2	1	1	WATCH GLASS	9.00	0.10	0.00
1	3.4.2	1	1	COUNTING PLATE	9.00	0.10	0.00
1	3.4.2	1	1	FORCEPS	2.79	0.03	0.00
1	3.4.2	1	1	BRUSH	2.79	0.03	0.00
1	3.4.2	1	1	ANESTHESIZING CHAMBER	18.00	0.20	0.00
1	3.4.2	1	1	PACKAGING MATERIAL	0.75	0.00	0.25
1	3.4.2	1	1	FORCEPS	0.00	0.00	0.00
1	3.4.2	2	1	WIRE MESH SIFTER	10.80	0.12	0.00
1	3.4.2	2	1	BOTTLE	9.00	0.10	0.00
1	3.4.2	2	1	SPATULA	0.90	0.01	0.00
1	3.4.2	2	1	FORCEPS	6.30	0.07	0.00
1	3.4.2	2	1	FORCEPS	0.00	0.00	0.00
1	3.4.2	4	1	FORCEPS	0.00	0.00	0.00
1	3.4.2	4	1	COUNTING PLATE	9.00	0.10	0.00
1	3.4.2	4	1	FORCEPS	6.30	0.07	0.00
1	3.4.2	4	1	BRUSH	2.79	0.03	0.00
1	3.4.2	4	1	COTTON PLUG, GAUZE	1.44	0.16	0.00
1	3.4.2	4	1	PACKAGING MATERIAL	3.00	0.00	0.25
1	3.4.2	5	2	VIALS	54.00	0.60	0.00
1	3.4.2	5	2	COTTON PLUGS	14.40	0.16	0.00
1	3.4.2	5	2	HONEY, DROPPING BOTTLE	0.48	0.00	0.04
1	3.4.2	5	2	FORCEPS	6.38	0.07	0.00
1	3.4.2	5	2	ANESTHESIZING CHAMBER	18.00	0.20	0.00
1	3.4.2	5	2	BRUSH	2.79	0.03	0.00
1	3.4.2	5	2	WATCH GLASS	9.00	0.10	0.00
1	3.4.2	5	2	WIRE MESH CAGE	1.50	0.00	1.50
1	3.4.2	5	2	FORCEPS	0.00	0.00	0.00
1	3.4.2	6	1	BELL JAR	1.20	0.00	0.40
1	3.4.2	6	1	WIRE MESH	0.36	0.00	0.12
1	3.4.2	6	1	CHEESE CLOTH	0.03	0.00	0.01
1	3.4.2	6	1	WATCH GLASS	9.00	0.10	0.00
1	3.4.2	6	1	FORCEPS	6.30	0.07	0.00
1	3.4.2	6	1	FORCEPS	0.00	0.00	0.00
1	3.4.2	6	1	PACKAGING MATERIAL	0.90	0.01	0.00
1	3.4.2	6	2	AQUARIUM TANK	49.00	0.00	16.00
1	3.4.2	6	2	WATER	5.40	0.00	1.80
1	3.4.2	6	2	AQUATIC PLANTS	0.54	0.00	0.18
1	3.4.2	6	2	DAPHNIA CONTAINER	0.60	0.00	0.20
1	3.4.2	6	2	YEAST AND DROPPING P	0.12	0.00	0.04

TABLE 0-5 (Cont'd)

1	3 4.2	6	2	OTTLE			
1	3 4.2	7	1	PACKAGING MATERIAL	0.75	0.00	0.25
1	3 4.2	7	1	VIALS	54.00	0.60	0.00
1	3 4.2	7	1	COTTON PLUGS	14.40	0.16	0.00
1	3 4.2	7	1	ANAESTHESIZING CHAMBER	18.00	0.20	0.00
1	3.4.2	7	1	ER			
1	3.4.2	7	1	FORCEPS	6.30	0.07	0.00
1	3.4.2	7	1	BRUSH	2.79	0.03	0.00
1	3 4.2	7	1	WATCH GLASS	9.00	0.10	0.00
1	3.4.2	7	1	WIRE CAGE	1.50	0.00	1.50
1	3 4.2	7	1	PACKAGING MATERIAL	3.00	0.00	0.25
1	3 4.2	7	1	FFCFs	0.00	0.00	0.00
1	3.4.2	7	2	WIRE MESH CAGE	1.50	0.00	1.50
1	3 4.2	7	2	FFCFs	0.00	0.00	0.00
1	3 4.2	7	2	PACKAGING MATERIAL	0.60	0.00	0.05
1	3 4.3	1	1	CAGES (3)	270.00	4.50	0.00
1	3 4.3	1	1	FOOD DISH	7.70	0.04	0.00
1	3.4.3	1	1	WATER BOTTLE	45.00	0.75	0.00
1	3 4.3	1	1	URINE,FFCFs,PAPER TO	28.20	0.47	0.00
1	3.4.3	1	1	WEI,FECAI COLLECTBAG			
1	3.4.3	1	1	PACKAGING MATERIAL	1.20	0.02	0.00
1	3 4.3	2	1	CAGES (24)	12140.00	36.00	0.00
1	3 4.3	2	1	SYRINGES	8.11	0.00	0.16
1	3 4.3	2	1	GAUZE PADS,ALCOHOL	1.25	0.00	0.02
1	3 4.3	2	1	WATER BOTTLE	2190.00	61.00	0.00
1	3.4.3	2	1	FOOD DISH	132.40	0.36	0.00
1	3.4.3	2	1	PACKAGING MATERIAL	14.60	0.04	0.00
1	3 4.3	2	1	URINE,FFCFs,PAPER,FE	1445.40	3.96	0.00
1	3 4.3	2	1	CAL COLLECTION BAG			
1	3.4.3	2	2	CAGES	3295.00	9.00	0.00
1	3.4.3	2	2	FOOD DISH	65.70	0.18	0.00
1	3 4.3	2	2	WATER BOTTLE	1095.00	0.00	0.00
1	3.4.3	2	2	PACKAGING	7.30	0.02	0.00
1	3 4.3	2	2	FFCFs,URINE,PAPER TO	730.00	2.00	0.00
1	3.4.3	2	3	WEI,FECAI COLLECTBAG			
1	3.4.3	2	3	CAGES	2190.00	6.00	0.00
1	3.4.3	2	3	WATER BOTTLE	365.00	1.00	0.00
1	3 4.3	2	3	FOOD DISH	21.90	0.06	0.00
1	3.4.3	2	3	WIPES,BACTERICIDE,HAIR	51.10	0.14	0.00
1	3 4.3	2	3	FFCFs,URINE,PAPER TO	230.90	0.66	0.00
1	3 4.3	2	3	WEI,FECAI COLLECTBAG			
1	3 4.3	2	3	PACKAGING MATERIAL	3.65	0.01	0.00
1	3.4.3	2	4	CAGES	3285.00	9.00	0.00
1	3 4.3	2	4	FOOD DISH	722.70	1.98	0.00
1	3.4.3	2	4	WATER DISH	350.40	0.96	0.00
1	3.4.3	2	4	FECAI COLLECTION BAG	408.80	1.12	0.00
1	3 4.3	3	1	,FFCFs,PAPER TOWEL			
1	3.4.3	3	1	CAGES (4)	540.00	6.00	0.00
1	3 4.3	3	1	WIPES WITH BACTERICID	12.60	0.14	0.00
1	3 4.3	3	1	F,HAIR			
1	3 4.3	3	1	URINE,FFCFs,PAPER TO	36.90	0.41	0.00
1	3 4.3	3	1	WEI,FECAI COLLECTBAG			
1	3.4.3	3	1	FOOD DISH	5.40	0.06	0.00
1	3.4.3	3	1	WATER BOTTLE	90.00	1.00	0.00
1	3.4.3	3	1	SYRINGE	0.94	0.00	0.08
1	3 4.3	3	1	GAUZE PADS,ALCOHOL	0.14	0.00	0.01

TABLE 0-5 (Cont'd)

1	3 4.3	3	1	PACKAGING MATERIAL	2.70	0.03	0.00
1	3.4.3	3	1	WATER BOTTLE	90.00	1.00	0.00
1	3 4.3	3	2	CAGE PACKS	810.00	0.09	0.00
1	3.4.3	3	2	FOOD DISH	8.10	0.00	0.00
1	3 4.3	3	2	URINE, COLLECTION BAG	70.20	0.78	0.00
1	3 4.3	3	2	FECES, COLLECTION BAG	48.60	0.51	0.00
1	3.4.3	3	2	SYRINGES	0.62	0.00	0.31
1	3 4.3	3	2	GAUZE PADS, ALCOHOL	0.10	0.00	0.05
1	3 4.3	3	2	WIPES, BACTERICIDE, HAIR	16.20	0.18	0.00
1	3.4.3	3	2	PAPER TOWEL, ANIMAL HAIR	5140.00	0.06	0.00
1	3 4.3	3	2	WATER BOTTLE	135.00	1.50	0.00
1	3.4.3	3	2	PACKAGING MATERIAL	7.70	0.03	0.00
1	3 4.3	4	1	MAGNIFIED TESTES BOTTLE	0.02	0.00	0.02
1	3 4.3	4	1	FIXATIVE SOLUTION BOTTLE	0.04	0.00	0.04
1	3.4.3	4	1	SYRINGE	0.01	0.00	0.01
1	3 4.3	4	1	FORCEPS	0.35	0.07	0.00
1	3 4.3	4	1	PACKAGING MATERIAL	0.05	0.01	0.00
1	3.4.3	5	1	FECAL COLLECTION BAG, WATER, FECES, URINE	10.14	0.00	6.14
1	3 4.3	5	1	CONTAINERS	72.00	0.00	24.00
1	3 4.3	5	1	SAND	18.00	0.00	6.00
1	3 4.3	5	1	AQUATIC PLANTS	1.62	0.00	0.54
1	3 4.3	5	1	PACKAGING MATERIAL	0.06	0.00	0.02
1	3 4.3	6	1	CAGES (4)	316.00	0.41	0.00
1	3 4.3	6	1	WIPES WITH BACTERICIDE, HAIR	7.84	0.14	0.00
1	3 4.3	6	1	PAPER TOWEL, FECES, URINE, FECAL COLLECTOR BAG	22.96	0.00	0.00
1	3 4.3	6	1	FOOD DISH	3.36	0.06	0.00
1	3 4.3	6	1	WATER BOTTLE	56.00	1.00	0.00
1	3 4.3	6	1	PACKAGING MATERIAL	1.12	0.02	0.00
1	3 4.3	7	1	CAGES (4)	540.00	6.00	0.00
1	3 4.3	7	1	FOOD DISH	5.40	0.06	0.00
1	3.4.3	7	1	WATER BOTTLE	90.00	1.00	0.00
1	3 4.3	7	1	THERMIST PROBE	1.08	0.01	0.00
1	3 4.3	7	1	ADHESIVE TAPE	0.36	0.00	0.00
1	3.4.3	7	1	PACKAGING MATERIAL	1.80	0.02	0.00
1	3.4.3	8	1	CAGES	9.00	0.00	9.00
1	3.4.3	8	1	PACKAGING MATERIAL	0.25	0.00	0.01
1	3 5.1	9	1	MEDIA IN PLATES DIRECULAR	234.00	0.00	4.50
1	3.5.1	9	1	MEDIA IN PLATES BIRD BAC	208.00	0.00	4.00
1	3 5.1	9	1	MEDIA IN TUBES	32.84	0.00	0.67
1	3 5.1	9	1	SYRINGES	1.56	0.00	0.30
1	3 5.1	9	1	SWABS	0.31	0.00	0.06
1	3 5.1	9	1	LOOPS	0.14	0.00	102.00
1	3 5.1	9	1	STAINING PAPER	0.14	0.00	0.02
1	3 5.1	9	1	SLIDES	0.52	0.00	0.01
1	3 5.1	9	1	PACKAGING MATERIAL	13.00	0.00	0.25
1	3 5.1	9	2	MEDIA IN PLATES DIRECULAR (154/HEPK)	754.00	0.00	14.50
1	3 5.1	9	2	MEDIA IN PLATES BIRD	46.80	0.00	0.90

TABLE 0-5 (Cont'd)

1	3.5.1	9	2	DAC			
				TURED MEDIA A) LIQUI	62.40	0.00	1.20
				D (49/WEEK)			
1	3.5.1	9	2	TURED MEDIA B) SOLID	140.40	0.00	2.70
				(108/WEEK)			
1	3.5.1	9	2	TONGUE DEPRESSORS (6	0.78	0.00	0.01
				/WEEK)			
1	3.5.1	9	2	SWABS (32/WEEK)	4.16	0.00	0.08
1	3.5.1	9	2	SYRINGE (6/WEEK)	41.60	0.00	0.38
1	3.5.1	9	2	INNOCULATING LOOPS (7.28	0.00	0.14
				54/WEEK)			
1	3.5.1	9	2	INNOCULATING NEEDLES	7.28	0.00	0.14
1	3.5.1	9	2	EMPTY SENSITIVITY DI	12.20	0.00	0.10
				SC CONTAINERS			
1	3.5.1	9	2	EMPTY DISC CONTAINER	0.67	0.00	0.06
				S			
1	3.5.1	9	2	MICROSCOPE SLIDES	2.08	0.00	0.04
1	3.5.1	9	2	STAINING PAPER	3.12	0.00	0.06
1	3.5.1	9	2	FORCEPS	0.03	0.00	0.03
1	3.5.1	9	2	PACKAGING MATERIAL	7.50	0.00	0.15
1	3.5.1	9	3	MEDIA IN PLATES	115.00	0.71	0.00
1	3.5.1	9	3	INNOCULATING LOOPS	1.60	0.01	0.00
1	3.5.1	9	3	STAINING PAPER	1.60	0.02	0.00
1	3.5.1	9	3	MICROSCOPE SLIDE	0.41	0.00	0.00
1	3.5.1	9	3	PACKAGING MATERIAL	2.60	0.40	0.00
1	3.5.1	9	4	CAUZE PADS, ALCOHOL	1.13	0.00	0.02
1	3.6.1	1	1	AIR	10.25	0.56	0.11
1	3.6.1	1	1	NITROGEN	0.49	0.49	0.10
1	3.6.2	1	1	AIR	125.86	5.37	0.97
1	3.6.2	1	1	NITROGEN	4.69	4.69	0.94
1	3.6.2	1	1	WATER	125.00	0.00	0.00
1	3.6.3	1	1	AIR	24.00	3.40	0.41

TABLE 0-6
SEARCH REPORT #4 - MATERIALS GENERATED IN
BIO LABORATORY AND IS SOLID

SEARCH NO 4

THE SEARCH HAS USED * AND * LOGIC ON THE FOLLOWING KEYWORDS

OR ITEM	AND ITEM	KEYWORD	VECTOR
1		BIO-LABORATORY (APFA)	7
2		SOLID (STATE)	10

THE FOLLOWING ITEMS WERE RETRIEVED

KEYWORD NO.	GROUP KEY	EQUIP / EXPT NO	WASTE SOURCE NO	WASTE ITEM	QUANTITIES		
					EXPT	TOTAL DAILY RATE	BATCH SIZE
*	3 4 1	1	1	CONTAINER	0 60	0 00	0 20
*	3 4 1	1	1	CONCO REQ, YEAST, BOTTLE	0 12	0 00	0 04
*	3 4 1	1	1	ACETIC ACID, BOTTLE	0 12	0 00	0 04
*	3 4 1	1	1	STAIN, BOTTLE	0 12	0 00	0 04
*	3 4 1	1	1	PASTEUR PIPETTE	0 90	0 01	0 00
*	3 4 1	1	1	PIPETTE BULB	0 04	0 00	0 00
*	3 4 1	1	1	STYLES-MOORE CHAMBER	1 80	0 02	0 00
*	3 4 1	1	1	LIGHT BULB	0 03	0 00	0 03
*	3 4 1	1	1	PACKAGING MATERIAL	0 75	0 00	0 75
*	3 4 1	1	2	GAS RESERVOIR FLASK	0 20	0 00	0 20
*	3 4 1	1	2	GAS RESERVOIR BOTTLE	0 20	0 00	0 20
*	3 4 1	1	2	CULTURE MEDIUM BOTTLE	2 40	0 00	0 20
*	3 4 1	1	2	CULTURE FLASK	0 20	0 00	0 20
*	3 4 1	1	2	SYRINGE	0 16	0 00	0 01
*	3 4 1	1	2	LYOPHILIZING MILK IN TUBES	24 00	0 00	0 02
*	3 4 1	1	2	PACKAGING MATERIAL	0 72	0 00	0 06
*	3 4 1	1	3	LYOPHILIZED MICROORGANISMS AND TUBE	0 09	0 00	0 03
*	3 4 1	1	3	MEDIA IN PLATES	4 50	0 05	0 00
*	3 4 1	1	3	MEDIA IN TUBES	18 00	0 01	0 00
*	3 4 1	1	3	SYRINGES	0 27	0 00	0 00
*	3 4 1	1	3	INOCULATING NEEDLES	0 48	0 00	0 04
*	3 4 1	1	3	PACKAGING MATERIAL	1 90	0 02	0 00
*	3 4 1	2	1	CONTAINER	0 60	0 00	0 20
*	3 4 1	2	1	CONCO REQ, YEAST, BOTTLE	0 12	0 00	0 04
*	3 4 1	2	1	ACETIC ACID, BOTTLE	0 12	0 00	0 04
*	3 4 1	2	1	STAIN, BOTTLE	0 12	0 00	0 04
*	3 4 1	2	1	PASTEUR PIPETTE	0 90	0 01	0 00
*	3 4 1	2	1	PIPETTE BULB	0 04	0 00	0 00
*	3 4 1	2	1	STYLES-MOORE CHAMBER	1 80	0 02	0 00
*	3 4 1	2	1	LIGHT BULB	0 03	0 00	0 03
*	3 4 1	2	1	PACKAGING MATERIAL	0 75	0 00	0 75

0-18

FAIRCHILD HILLER
REPUBLIC AVIATION DIVISION

TABLE 0-6 (Cont'd)

*	3.4.1	3	1	TISSUE CULTURE DISH	0 05	0.00	0.05
*	3 4 1	3	1	TISSUE CULTURE TUBES	2 40	0 00	0.20
*	3 4 1	3	1	SLIDES	0 90	0.01	0 00
*	3.4.1	3	1	FORCEPS	2.70	0.03	0.00
*	3.4.1	3	1	SCISSORS	6.30	0 07	0.00
*	3 4.1	3	1	TISSUE CULTURE MEDIA	2 40	0.00	0.80
				BOTTLE			
*	3 4 1	3	1	TISSUE CULTURE MEDIUM	2 40	0 00	0 80
				REFHYDRATING			
*	3.4.1	3	1	STAIN AND BOTTLE	0 12	0 00	0.04
*	3 4.1	3	1	SYRINGE	1 17	0 00	0.03
*	3.4 1	3	1	TISSUE CULTURE GRID	0.00	0 00	0.02
*	3 4.1	3	1	HEMOCYTOMETER	9.00	0 10	0 00
*	3.4.1	3	1	PACKAGING MATERIAL	2 70	0.03	0.00
*	3 4 1	3	2	SYRINGES	0 31	0.00	0.03
*	3.4 1	3	2	TISSUE CULTURE MEDIUM	0.60	0.00	0 20
				BOTTLE			
*	3.4.1	3	2	REFHYDRATING FLUID BOTTLE	0.60	0.00	0.20
				FORCEPS			
*	3.4.1	3	2	PACKAGING MATERIAL	0.12	0.00	0.01
*	3.4 1	4	1	PETRI DISH AND EGG S	2 70	0 03	0.00
				FILE			
*	3 4 1	4	1	CURVED FORCEPS	2 70	0 03	0 00
*	3.4.1	4	1	STRAIGHT FORCEPS	2 70	0 03	0 00
*	3.4 1	4	1	SCISSORS	6.30	0 07	0.00
*	3 4 1	4	1	PACKAGING MATERIAL	2 70	0 03	0 00
*	3 4 1	4	1	PAPER TOWEL	0.90	0.01	0.00
*	3 4 1	5	1	MICROORGANISMS, TUBE	0.90	0 00	0.30
				, DISTILLED WATER			
*	3.4.1	5	1	PHAGE, TUBE, DISTILLED	1 80	0 00	0.60
				WATER			
*	3.4.1	5	1	MEDIA IN TUBES	12.00	0 00	1 00
*	3 4 1	5	1	MEDIA IN PLATES	6.00	0 00	0.50
*	3 4.1	5	1	INOCULATING NEEDLES	0 30	0 00	10.25
*	3.4 1	5	1	SYRINGES	0 39	0 00	0.13
*	3 4 1	5	1	LYOPHILIZING MILK IN	1 20	0 00	0.10
				TUBES			
*	3.4 1	5	1	PAPER TOWELS	5.40	0.06	0.00
*	3 4 1	5	1	PACKAGING MATERIAL	3 00	0 00	0.25
*	3.4.1	6	1	LYOPHILIZED NEUROSPORA	1 56	0.00	0 52
				RA, H2O, TUBES			
*	3.4.1	6	1	LYOPHILIZING MILK IN	1 20	0 00	0.40
				TUBES			
*	3.4.1	6	1	MEDIA IN TUBES	4 80	0.00	0.40
*	3 4.1	6	1	SYRINGES	0 72	0 00	0.24
*	3 4 1	6	1	INOCULATING NEEDLES	0.48	0 00	0.04
*	3.4 1	6	1	PAPER TOWELS	5.40	0 06	0.00
*	3.4 1	6	1	PACKAGING MATERIAL	3 00	0 00	0 25
*	3 4.1	7	1	REAGENT BOTTLES	7 20	0.00	0.16
*	3.4.1	7	1	PAPER TOWELS	5.40	0 06	0.00
*	3.4.1	7	1	COLORIMETRIC BLANKS	7 20	0 08	0.00
*	3 4 1	7	1	DEFECTIVE BULB	0 08	0.00	0 03
*	3.4 1	7	1	PACKAGING MATERIAL	0 54	0 00	0.02
*	3.4 2	1	1	YEAST SOLUTION, BOTTLE	0 12	0 00	0.04
				F			
*	3 4 2	1	1	WATCH GLASS	9.00	0 10	0.00

TABLE 0-6 (Cont'd)

*	3.4.2	1	1	COUNTING PLATE	9.00	0.10	0.00
*	3.4.2	1	1	FORCEPS	2.79	0.03	0.00
*	3.4.2	1	1	BRUSH	2.79	0.03	0.00
*	3.4.2	1	1	BOTTLE WITH ANAESTHESIZING AGENT	0.24	0.00	0.04
*	3.4.2	1	1	ANAESTHESIZING CHAMBER	18.00	0.20	0.00
*	3.4.2	1	1	EFFECTIVE MICROSCOPE LAMP	0.06	0.00	0.02
*	3.4.2	1	1	PACKAGING MATERIAL	0.75	0.00	0.25
*	3.4.2	1	1	FECES	0.00	0.00	0.00
*	3.4.2	2	1	WIRE MESH SIFTER	10.80	0.12	0.00
*	3.4.2	2	1	BOTTLE	9.00	0.10	0.00
*	3.4.2	2	1	SPATULA	0.90	0.01	0.00
*	3.4.2	2	1	BRUSH	2.79	0.03	0.00
*	3.4.2	2	1	FORCEPS	6.30	0.07	0.00
*	3.4.2	2	1	PACKAGING MATERIALS	1.50	0.00	0.25
*	3.4.2	2	1	FECES	0.00	0.00	0.00
*	3.4.2	4	1	FECES	0.00	0.00	0.00
*	3.4.2	4	1	DROPPING BOTTLE WITH MILK AND WATER	0.72	0.00	0.06
*	3.4.2	4	1	ANAESTHESIZING CHAMBER	18.00	0.20	0.00
*	3.4.2	4	1	WIRE MESH CAGE	1.50	0.00	1.50
*	3.4.2	4	1	WATCH GLASS	9.00	0.10	0.00
*	3.4.2	4	1	COUNTING PLATE	9.00	0.10	0.00
*	3.4.2	4	1	FORCEPS	6.30	0.07	0.00
*	3.4.2	4	1	BRUSH	2.79	0.03	0.00
*	3.4.2	4	1	COTTON PLUG, GAUZE	1.44	0.16	0.00
*	3.4.2	4	1	PACKAGING MATERIAL	3.00	0.00	0.25
*	3.4.2	5	2	VIALS	54.00	0.60	0.00
*	3.4.2	5	2	COTTON PLUGS	14.40	0.16	0.00
*	3.4.2	5	2	HONEY, DROPPING BOTTLE	0.48	0.00	0.04
*	3.4.2	5	2	FORCEPS	6.30	0.07	0.00
*	3.4.2	5	2	ANAESTHESIZING AGENT	0.48	0.00	0.04
*	3.4.2	5	2	DROPPING BOTTLE	18.00	0.20	0.00
*	3.4.2	5	2	ANAESTHESIZING CHAMBER	18.00	0.20	0.00
*	3.4.2	5	2	PACKAGING MATERIAL	3.00	0.00	0.25
*	3.4.2	5	2	BRUSH	2.79	0.03	0.00
*	3.4.2	5	2	WATCH GLASS	9.00	0.10	0.00
*	3.4.2	5	2	WIRE MESH CAGE	1.50	0.00	1.50
*	3.4.2	5	2	FECES	0.00	0.00	0.00
*	3.4.2	6	1	BELL JAR	1.20	0.00	0.40
*	3.4.2	6	1	WIRE MESH	0.36	0.00	0.12
*	3.4.2	6	1	CHEESE CLOTH	0.03	0.00	0.01
*	3.4.2	6	1	WATCH GLASS	9.00	0.10	0.00
*	3.4.2	6	1	FORCEPS	6.30	0.07	0.00
*	3.4.2	6	1	BRUSH	2.79	0.03	0.00
*	3.4.2	6	1	FECES	0.00	0.00	0.00
*	3.4.2	6	1	PACKAGING MATERIAL	0.90	0.01	0.00
*	3.4.2	6	2	AQUARIUM TANK	48.00	0.00	16.00
*	3.4.2	6	2	SAND, WET	6.00	0.00	2.00
*	3.4.2	6	2	AQUATIC PLANTS	0.54	0.00	0.18
*	3.4.2	6	2	DAPHNIA CONTAINER	0.60	0.00	0.20
*	3.4.2	6	2	YEAST AND DROPPING B	0.12	0.00	0.04

TABLE 0-6 (Cont'd)

*	3.4.2	6	2	BOTTLE			
*	3.4.2	7	1	PACKAGING MATERIAL	0.75	0.00	0.75
*	3.4.2	7	1	VIALS	54.00	0.60	0.00
*	3.4.2	7	1	COTTON PLUGS	14.40	0.16	0.00
*	3.4.2	7	1	LIQUID POLLEN, BOTTLE	0.48	0.00	0.04
*	3.4.2	7	1	E			
*	3.4.2	7	1	ANAESTHESIZING AGENT, BOTTLE	0.48	0.00	0.04
*	3.4.2	7	1	ANAFSTHESIZING CHAMBER	18.00	0.20	0.00
*	3.4.2	7	1	ER			
*	3.4.2	7	1	FORCEPS	6.30	0.07	0.00
*	3.4.2	7	1	BRUSH	2.79	0.03	0.00
*	3.4.2	7	1	WATCH GLASS	9.00	0.10	0.00
*	3.4.2	7	1	WIRE CAGE	1.50	0.00	1.50
*	3.4.2	7	1	PACKAGING MATERIAL	3.00	0.00	0.25
*	3.4.2	7	1	FECES	0.00	0.00	0.00
*	3.4.2	7	2	WIRE MESH CAGE	1.50	0.00	1.50
*	3.4.2	7	2	FECES	0.00	0.00	0.00
*	3.4.2	7	2	PACKAGING MATERIAL	0.60	0.00	0.05
*	3.4.3	1	1	CAGES (3)	270.00	4.50	0.00
*	3.4.3	1	1	FOOD DISH	2.70	0.04	0.00
*	3.4.3	1	1	WATER BOTTLE	45.00	0.75	0.00
*	3.4.3	1	1	WIPES WITH BACTERICIDE	8.40	0.14	0.00
				OF HAIR			
*	3.4.3	1	1	URINE, FECES, PAPER TO WEL, FECAL COLLECTBAG	28.20	0.47	0.00
*	3.4.3	1	1	PACKAGING MATERIAL	1.20	0.02	0.00
*	3.4.3	2	1	CAGES (24)	12140.00	36.00	0.00
*	3.4.3	2	1	WIPES, BACTERICIDE, HAIR	306.60	0.84	6.07
*	3.4.3	2	1	IP			
*	3.4.3	2	1	SYRINGES	8.11	0.00	0.16
*	3.4.3	2	1	GAUZE PADS, ALCOHOL	1.25	0.00	0.02
*	3.4.3	2	1	WATER BOTTLE	2190.00	61.00	0.00
*	3.4.3	2	1	FOOD DISH	132.40	0.36	0.00
*	3.4.3	2	1	PACKAGING MATERIAL	14.60	0.04	0.00
*	3.4.3	2	1	URINE, FECES, PAPER, FECAL COLLECTION BAG	1445.40	3.96	0.00
*	3.4.3	2	2	CAGES	3295.00	9.00	0.00
*	3.4.3	2	2	WATER BOTTLE	1095.00	0.00	0.00
*	3.4.3	2	2	WIPES, BACTERICIDE, HAIR	153.30	0.42	0.00
*	3.4.3	2	2	PACKAGING	7.30	0.02	0.00
*	3.4.3	2	2	FECES, URINE, PAPER TO WEL, FECAL COLLECTBAG	730.00	2.00	0.00
*	3.4.3	2	3	CAGES	2190.00	6.00	0.00
*	3.4.3	2	3	WATER BOTTLE	365.00	1.00	0.00
*	3.4.3	2	3	FOOD DISH	21.90	0.06	0.00
*	3.4.3	2	3	WIPES, BACTERICIDE, HAIR	51.10	0.14	0.00
*	3.4.3	2	3	IR			
*	3.4.3	2	3	FECES, URINE, PAPER TO WEL, FECAL COLLECTBAG	230.90	0.66	0.00
*	3.4.3	2	3	PACKAGING MATERIAL	3.65	0.01	0.00
*	3.4.3	2	3	SYRINGE	0.65	0.00	0.01
*	3.4.3	2	4	CAGES	3285.00	9.00	0.00
*	3.4.3	2	4	FOOD DISH	722.70	1.98	0.00
*	3.4.3	2	4	WATER DISH	350.40	0.96	0.00
*	3.4.3	2	4	WIPES, BACTERICIDE, HAIR	1095.00	3.00	0.00

TABLE 0-6 (Cont'd)

*	3.4.3	2	4	IR			
*	3.4.3	2	4	PACKAGING MATERIALS	7.30	0.02	0.00
*	3.4.3	2	4	FECAL COLLECTION BAG	408.90	1.12	0.00
*	3.4.3	3	1	,FECES,PAPER TOWEL			
*	3.4.3	3	1	CAGES (4)	540.00	6.00	0.00
*	3.4.3	3	1	WIPES WITH BACTERICID	12.60	0.14	0.00
*	3.4.3	3	1	F,HAIR			
*	3.4.3	3	1	URINE,FECES,PAPER TO	36.90	0.41	0.00
*	3.4.3	3	1	WEL,FECAL COLLECTRAC			
*	3.4.3	3	1	FOOD DISH	5.40	0.06	0.00
*	3.4.3	3	1	WATER BOTTLE	90.00	1.00	0.00
*	3.4.3	3	1	SYRINGE	0.94	0.00	0.00
*	3.4.3	3	1	GAUZE PADS,ALCOHOL	0.14	0.00	0.01
*	3.4.3	3	1	PACKAGING MATERIAL	2.70	0.03	0.00
*	3.4.3	3	1	WATER BOTTLE	90.00	1.00	0.00
*	3.4.3	3	2	CAGE RACKS	810.00	0.09	0.00
*	3.4.3	3	2	FOOD DISH	8.10	0.00	0.00
*	3.4.3	3	2	URINE,COLLECTION BAG	70.70	0.78	0.00
*	3.4.3	3	2	FECES,COLLECTION BAG	49.60	0.51	0.00
*	3.4.3	3	2	SYRINGES	0.62	0.00	0.01
*	3.4.3	3	2	GAUZE PADS,ALCOHOL	0.10	0.00	0.05
*	3.4.3	3	2	WIPES,BACTERICIDE,HA	16.20	0.18	0.00
*	3.4.3	3	2	IR			
*	3.4.3	3	2	PAPER TOWEL,ANIMAL H	5140.00	0.06	0.00
*	3.4.3	3	2	AIR			
*	3.4.3	3	2	WATER BOTTLE	135.00	1.50	0.00
*	3.4.3	3	2	PACKAGING MATERIAL	2.70	0.03	0.00
*	3.4.3	4	1	MAGNIFIED TESTES BOT	0.02	0.00	0.02
*	3.4.3	4	1	TLE			
*	3.4.3	4	1	FIXATIVE SOLUTION BO	0.04	0.00	0.04
*	3.4.3	4	1	TTLF			
*	3.4.3	4	1	SYRINGE	0.01	0.00	0.01
*	3.4.3	4	1	FORCEPS	0.35	0.07	0.00
*	3.4.3	4	1	PACKAGING MATERIAL	0.05	0.01	0.00
*	3.4.3	5	1	FECAL COLLECTION BAG	18.14	0.00	6.14
*	3.4.3	5	1	,WATER,FECES,URINE			
*	3.4.3	5	1	CONTAINERS	72.00	0.00	24.00
*	3.4.3	5	1	SAND	18.00	0.00	6.00
*	3.4.3	5	1	AQUATIC PLANTS	1.62	0.00	0.54
*	3.4.3	5	1	PACKAGING MATERIAL	0.06	0.00	0.02
*	3.4.3	6	1	CAGES (4)	316.00	0.41	0.00
*	3.4.3	6	1	WIPES WITH BACTERICI	7.84	0.14	0.00
*	3.4.3	6	1	DE,HAIR			
*	3.4.3	6	1	PAPER TOWEL,FECES,UP	22.96	0.00	0.00
*	3.4.3	6	1	INF,FECAL COLLECTRAC			
*	3.4.3	6	1	FOOD DISH	3.36	0.06	0.00
*	3.4.3	6	1	WATER BOTTLE	56.00	1.00	0.00
*	3.4.3	6	1	PACKAGING MATERIAL	1.12	0.02	0.00
*	3.4.3	7	1	CAGES (4)	540.00	6.00	0.00
*	3.4.3	7	1	FECES,PAPER TOWEL,FF	11.70	0.13	0.00
*	3.4.3	7	1	CAL COLLECTION BAG			
*	3.4.3	7	1	FOOD DISH	5.40	0.06	0.00
*	3.4.3	7	1	WATER BOTTLE	90.00	1.00	0.00
*	3.4.3	7	1	WIPES,BACTERICIDE,HA	18.90	0.21	0.00
*	3.4.3	7	1	IR			
*	3.4.3	7	1	LIGHT BULB	0.06	0.00	0.03
*	3.4.3	7	1	THERMISTER PROBE	1.08	0.01	0.00

TABLE 0-6 (Cont'd)

*	3 4.3	7	1	ADHESIVE TAPE	0.36	0.00	0.00
*	3.4 3	7	1	PACKAGING MATERIAL	1.80	0.02	0.00
*	3 4.3	8	1	PACKAGING MATERIAL	0.25	0 00	0.01

TABLE 0-7
SEARCH REPORT #5 - MATERIAL CONTAINS Fe and Cu

SEARCH NO 5

THE SEARCH HAS USED ' AND ' LOGIC ON THE FOLLOWING KEYWORDS

*OR*ITEM	*AND*ITEM	KEYWORD	VECTOR
1	FF	(ELEMENT)	12
2	CU	(ELEMENT)	12

THE FOLLOWING ITEMS WERE RETRIEVED

KEYWORD NO.	GROUP KEY	EQUIP NO	/EXPT NO	WASTE SOURCE NO	WASTE ITEM	QUANTITIES		
						12 MEN	50 MEN	100 MEN

*	1.3.1	1	1	1	SPENT PARTS	4.00	8.00	16.00
*	1.3.2	1	2	2	MAGNETRON TUBE	2.10	4.20	7.00
*	1.5.1	1	1	1	PRESSURE SEALS	0.64	2.60	5.20
*	1.5.2	1	1	1	PRESSURE SEALS	0.30	1.20	2.50
*	1.5.2	1	1	1	PRESSURE SENSOR, CON	0.01	0.05	0.10
					TACT SET			
*	1.5.2	1	1	1	SOLENOID VALVE	0.50	2.00	4.00
*	1.5.3	1	1	1	TEMPERATURE CONTROL	0.32	1.30	2.60
					UNIT PARTS			
*	1.5.3	1	1	1	HUMIDITY CONTROL UNI	0.32	1.30	2.60
					T PARTS			
*	1.5.3	1	1	1	HUMIDITY CONTROL VAL	1.50	6.00	12.00
					VE			
*	1.5.4	1	1	1	FAN MOTOR	1.00	3.00	5.00
*	1.5.4	1	1	1	HEATER CONTROL	2.00	6.00	10.00
*	1.5.5	2	1	1	HEATER COIL AND CONT	10.00	20.00	35.00
					ROL			
*	1.5.6	1	1	1	FAN	8.50	17.00	25.50
*	1.5.6	1	1	1	DIVERTER VALVE	1.00	3.00	6.00
*	1.5.6	1	1	1	CONDENSOR/SEPARATOR	40.00	120.00	200.00
*	1.5.6	1	1	1	SOLENOID VALVE	2.00	8.00	16.00
*	1.5.6	2	1	1	HEATER CONTROL	2.00	6.00	10.00
*	1.5.6	2	1	1	MAIN CONTROL	2.00	6.00	10.00
*	1.5.6	3	1	1	STARTUP HEATER ASSEM	2.00	6.00	10.00
					RY			
*	1.5.6	3	1	1	FAN	1.00	3.00	5.00
*	1.5.7	1	1	1	BYPASS VALVE CONTROL	2.00	8.00	16.00
*	1.5.7	1	1	1	BYPASS VALVE	5.00	20.00	40.00
*	1.5.8	1	1	1	HEATER CONTROL	2.00	8.00	16.00
*	1.5.8	1	1	1	CONDUCTIVITY SENSOR	1.00	4.00	8.00
*	1.5.8	1	1	1	SOLIDS SENSOR	1.28	5.00	10.00
*	1.5.8	1	1	1	SOLENOID VALVE	5.00	20.00	40.00
*	1.5.8	2	1	1	PRESSURE SEALS	1.00	3.20	4.40
*	1.5.8	2	1	1	SOLENOID VALVE	5.00	15.00	22.50
*	1.5.8	2	1	1	HEATER SENSOR/CONTR	0.70	2.10	3.20

0-24

FAIRCHILD HILLER
REPUBLIC AVIATION DIVISION

TABLE 0-7 (Cont'd)

				10 YR. TOTAL DAILY RATE UNIT WEIGHT		

*	2.1 1	1	1	FAILED POWER SUPPLY PACKAGE	30.60	0 00 25.00
*	2 1.1	1	1	FAILED COMPUTER	726.80	0.00 35.00
*	2 1.1	1	1	FAILED SENSOR MOUNTING BLOCK	115.60	0.00 40 00
*	2.1 1	1	1	FAILED PLATFORM ELECTRONICS	14.90	0 00 10.00
*	2.1 1	1	1	FAILED STAR TRACKER MECHANICAL ASSEMBLY	48 00	0.00 25.00
*	2 1 1	1	1	FAILED STAR TRACKER ELECTRONICS	13.40	0.00 14.00
*	2 1 1	1	1	FAILED HORIZON SCANNER MECHANICAL ASSY	48.00	0.00 25.00
*	2.1.1	1	1	FAILED HORIZON SCANNER ELECTRONICS	30.60	0.00 25.00
*	2 1.1	2	1	FAILED CMG GIMBAL MOTOR	93 50	0.00 50.00
*	2.1.1	2	1	FAILED CMG GIMBAL ANGLES PICK-OFF	1.80	0.00 1 00
*	2 1.1	2	1	FAILED CMG SERVO ELECTRONICS	43.40	0.00 15.00
*	2 1.1	2	1	FAILED CMG GIMBAL ANGLES SERVO MOTOR	46 80	0.00 25 00
*	2 1.1	2	1	FAILED CMG POWER SUPPLY	18.50	0.00 15 00
*	2 1 1	2	2	FAILED FILL VALVE & PRESSURE RELIEF	7.90	0.00 3 00
*	2 1 1	2	2	FAILED N2 START VALVE	7.00	0.00 2.00
*	2 1.1	2	2	FAILED PRESSURE REGULATOR	26 30	0.00 5 00
*	2 1.1	2	2	FAILED CHECK VALVE	0.26	0.00 1 00
*	2 1 1	2	2	FAILED PROPELLANT FILL VALVE	0.52	0.00 2 00
*	2.1 1	2	2	FAILED FUEL START VALVE	7.00	0 00 2.00
*	2.1.1	2	2	FAILED FLOW CONTROL VALVE	378.00	0 00 3.00
*	2 1.1	2	3	FAILED FILL VALVE	7.90	0 00 3 00
*	2 1 1	2	3	VALVE, PRESSURANT START	7.00	0 00 2 00
*	2.1.1	2	3	FAILED PRESSURE REGULATOR	57.60	0.00 5 00
*	2.1 1	2	3	FAILED RELIEF VALVE	15.80	0.00 3.00
*	2.1.1	2	3	FAILED CHECK VALVE	0 52	0.00 1 00
*	2.1.1	2	3	FAILED PURGE AND FILL VALVE	1 04	0 00 2 00
*	2 1.1	2	3	FAILED ISOLATION VALVE	12 48	0.00 2.00
*	2 1 1	2	3	FAILED RI PROPELLANT VALVE	504.00	0 00 4.00
*	2 2.1	1	1	FAILED SOLAR ARRAYS	24587.00	0.00 0 12
*	2.2 1	1	1	FAILED REGULATOR	55.00	0 00 15 00

TABLE 0-7 (Cont'd)

*	2.2 1	1	1	FAILED INVERTER	131.00	0 00	25.00
*	2.2.1	1	1	FAILED VOLTAGE REFER ENCE	0 90	0.00	2 50
*	2 2 1	1	1	FAILED SYNCHRONIZER CLOCK	0 90	0 00	2 50
*	2.2 1	1	1	FAILED CIRCUIT BREAK ER	0 60	0.00	1 00
*	2.2 1	1	1	FAILED POWER CONTACT OR	0 70	0.00	1.00
*	2 2 1	1	1	FAILED MONITOR METER (DC)	1 0 09	0.00	0.50
*	2 2 1	1	1	FAILED MONITOR METER (AC)	0 09	0 00	0 50
*	2 2 1	1	1	FAILED MONITOR METER SWITCHES	0.18	0.00	0 25
*	2 2 1	1	1	FAILED REMOTE CONTR L SWITCHES	0.35	0.00	0 75
*	2 2 1	2	1	FAILED PCS	24360 00	0 00	4200 00
*	2 2.1	2	1	FAILED PUMP/MOTOR	75 00	0 00	25 00
*	2.2.1	2	1	FAILED FREQUENCY DIS CRIMINATOR	18 90	0 00	2 00
*	2 2 1	2	1	FAILED MAGNETIC PREA MPLIFIER	0 37	0 00	2 00
*	2 2 1	2	1	FAILED MAGNETIC AMPL IFIER	2 90	0.00	3 00
*	2 2 1	2	1	FAILED PARASITIC LOA D BANK	1 58	0.00	60 00
*	2 2 1	2	1	FAILED VOLTAGE SENSIT NG CIRCUIT	1 50	0 00	2 00
*	2.2 1	2	1	FAILED VOLTAGE REFER ENCE	1 50	0 00	2 00
*	2 2 1	2	1	FAILED TRANSISTOR AM PLIFIER	1 10	0 00	1 50
*	2 2 1	2	1	FAILED MAGNETIC AMPL IFIER	1.50	0.00	3 00
*	2.2.1	2	1	FAILED FULL WAVE REC TIFIER	1.60	0.00	1.50
*	2 2 1	2	1	FAILED SATURATING CU RRENT POTENTIAL TRAN	3 16	0 00	40 00
*	2 2 1	2	1	FAILED CIRCUIT BREAK ERS	0 35	0.00	1 00
*	2.2.1	2	1	FAILED POWER CONTACT OR	0.35	0 00	1 00
*	2 2 1	2	1	FAILED MONITOR METER (DC)	0 04	0 00	0 50
*	2 2.1	2	1	FAILED MONITOR METER (AC)	0 04	0 00	0.50
*	2 2 1	2	1	FAILED REMOTE CONTR L SWITCHES	0.17	0.00	0 75
*	2 2 2	1	1	FAILED CIRCUIT BREAK ER	2 10	0.00	1.00
*	2 2 2	1	1	FAILED INVERTER REC ULATOR	358 00	0.00	40 00
*	2 2 2	1	1	FAILED SOLAR ARRAY B ATTERY CHARGER REC	16872.00	0.00	80 00
*	2 2 2	1	1	FAILED PI/PAYTON BA TTERY CHARGER REC.	6749 00	0 00	80 00

TABLE 0-7 (Cont'd)

*	2 2.2	1	1	FAILED FUPL CELL	0 00	0.00	0 00
*	2.2.2	1	1	FAILED RECTIFIER FIL TFR	52 60	0.00	20.00
*	2 2 2	1	1	FAILED TRANSFORMER	2.75	0.00	25 00
*	2 2.2	1	1	FAILED POWER CONTACT OR	2.45	0.00	1.00
*	2.2 2	1	1	FAILED MONITOR METER DC	0.04	0.00	0 50
*	2 2.2	1	1	FAILED MONITOR METER AC	0.04	0 00	0.50
*	2 2 2	1	1	FAILED MONITOR METER SWITCHES	0 04	0 00	0.25
*	2 2 2	1	1	FAILED REMOTE CONTROL SWITCHES	0.11	0.00	0.25
*	2.2.3	1	1	FAILED CCT BKR & GRO UND LEAKAGE DETECTOR	76.80	0.00	20 00
*	2 2.3	1	1	FAILED CCT BKR/LOAD CONTROL UNIT	220.00	0.00	20.00
*	2 2.3	1	1	FAILED CURRENT SENSIT TIVE ELEMENT	30.30	0.00	1 50
*	2.2.3	1	1	FAILED INDIVIDUAL LI NE CCT. BREAKER	3.70	0.00	0.50
*	2 2 3	1	1	FAILED MONITOR METER (AC)	0.04	0 00	0.50
*	2 2 3	1	1	FAILED MONITOR METER SWITCHES	0.04	0.00	0.25
*	2.2.3	1	1	FAILED REMOTE CONTROL SWITCHES	0.47	0.00	0 75
*	2 2 3	1	1	FAILED CCT.BKR & GRO UND LEAKAGE DETECTOR	76.80	0.00	20.00
*	2 2.3	1	1	FAILED CCT.BKR & LOA D CONTROL UNIT	84.80	0.00	20.00
*	2.2 3	1	1	FAILED CURRENT SENSIT TIVE ELEMENT	11.50	0 00	12.00
*	2 2.3	1	1	FAILED INDIVIDUAL LI NE CCT BREAKER	1.40	0 00	0.50
*	2 2.3	1	1	FAILED MONITOR METER S	0.04	0.00	0.50
*	2.2.3	1	1	FAILED MONITOR METER SWITCHES	0 04	0.00	0.25
*	2.2 3	1	1	FAILED REMOTE CONTROL SWITCHES	0.18	0.00	0.25
*	2 3.1	1	1	ANTENNAS AND SOLAR C ELLS	0.00	0.00	0 00
*	2.4.1	1	1	FAILED KU BAND REFLE CTOR, FEED & POSITIONER	1408.00	0.00	440.00
*	2 4.1	1	1	FAILED KU BAND MIXER /MULTIPLEXER	8.80	0 00	20 00
*	2.4.1	1	1	FAILED KU BAND FERRI TE SWITCHES & QUADRU	1.40	0.00	6.00
*	2 4 1	1	1	FAILED KU BAND FM TR ANSMITTER	60 00	0 00	25.00
*	2 4.1	1	1	FAILED KU BAND PM TR ANSMITTER	7.70	0 00	10.00
*	2 4 1	2	1	FAILED S-BAND DUPLEX ER/SWITCHES	0.84	0.00	6 00
*	2 4.1	2	1	FAILED S-BAND FERRIT	0.07	0.00	5 50

8 SWITCHES

QTY	UNIT	DESCRIPTION	UNIT PRICE	TOTAL PRICE	DATE	TIME
47	00	0 00	14.00			
42	00	0.00	12 00			
12	00	0.00	10.00			
1.50	0.00	2.50				
0.84	0.00	12 00				
0.20	0.00	1 50				
0 56	0.00	2 00				
3 50	0.00	3 00				
3 40	0.00	3 00				
8 60	0.00	2 50				
5 70	0 00	2 50				
84 00	0 00	15.00				
40 00	0 00	9 00				
3 80	0 00	5.00				
84 00	0.00	15.00				
1 70	0 00	4.00				
1 64	0.00	2.00				
6.56	0 00	8.00				
17 10	0.00	3 00				
5.00	0 00	5.00				
5 00	0 00	5 00				
5 00	0.00	5.00				
101 60	0 00	40 00				
EXPT. TOTAL DAILY RATE BATCH SIZE						

1100	00	0.00	1100.00			
1320	00	120.00	120.00			

TABLE 0-8
SEARCH REPORT #6 - MATERIAL CONTAINS Fe or Cu

SEARCH NO. 6

THE SEARCH HAS USED ' OR ' LOGIC ON THE FOLLOWING KEYWORDS

'OR' ITEM	'AND' ITEM	KEYWORD	VECTOR
1		FE (ELEMENT)	12
2		CU (ELEMENT)	12

THE FOLLOWING ITEMS WERE RETRIEVED

KEYWORD NO.	GROUP KFY	EQUIP /EXPT - NO.	WASTE SOURCE NO.	WASTE ITEM	QUANTITIES		
					12 MEN	50 MEN	100 MEN
					*****	*****	*****
1	1 2 3	1	1	MAGNETIC TAPES CASSETTES	8.00	8.00	8.00
1	1.3 1	1	1	SPENT PARTS	4.00	8.00	16.00
2	1 3 1	1	1	SPENT PARTS	4.00	8.00	16.00
1	1.3.2	1	2	MAGNETRON TUBE	2.10	4.20	7.00
2	1 3 2	1	2	MAGNETRON TUBE	2.10	4.20	7.00
2	1 4 5	1	1	FAILED BLOWER MOTOR	21.00	87.50	175.00
2	1 4.5	2	1	FAILED BLOWER	2.10	5.20	18.20
1	1.5 1	1	1	PRESSURE SEALS	0.64	2.60	5.20
2	1.5 1	1	1	PRESSURE SEALS	0.64	2.60	5.20
1	1.5 1	1	1	PRESSURE SENSING SELECTOR VALVE	1.50	6.00	12.00
1	1.5.2	1	1	REGULATOR DIAPHRAM	0.02	0.10	0.20
1	1.5.2	1	1	PRESSURE SEALS	0.30	1.20	2.50
2	1.5 2	1	1	PRESSURE SEALS	0.30	1.20	2.50
1	1.5 2	1	1	PRESSURE SENSOR, CONTROL	0.01	0.05	0.10
				TACT SET			
2	1.5 2	1	1	PRESSURE SENSOR, CONTROL	0.01	0.05	0.10
				TACT SET			
1	1.5.2	1	1	SOLENOID VALVE	0.50	2.00	4.00
2	1.5 2	1	1	SOLENOID VALVE	0.50	2.00	4.00
1	1.5.3	1	1	TEMPERATURE CONTROL UNIT PARTS	0.32	1.30	2.60
2	1.5 3	1	1	TEMPERATURE CONTROL UNIT PARTS	0.32	1.30	2.60
				TEMPERATURE CONTROL UNIT PARTS			
1	1.5.3	1	1	HUMIDITY CONTROL UNIT PARTS	0.32	1.30	2.60
2	1.5.3	1	1	HUMIDITY CONTROL UNIT PARTS	0.32	1.30	2.60
				HUMIDITY CONTROL UNIT PARTS			
1	1.5.3	1	1	HUMIDITY CONTROL VALVE	1.50	6.00	12.00
2	1.5 3	1	1	HUMIDITY CONTROL VALVE	1.50	6.00	12.00
				HUMIDITY CONTROL VALVE			
1	1.5.4	1	1	FAN MOTOR	1.00	3.00	5.00
2	1.5 4	1	1	FAN MOTOR	1.00	3.00	5.00

TABLE 0-8 (Cont'd)

1	1.5 4	1	1	REGULATOR	0 09	0 40	0 89
1	1.5 4	1	1	HEATER CONTROL	2.00	6 00	10 00
2	1.5 4	1	1	HEATER CONTROL	2.00	6 00	10 00
1	1.5 4	1	1	4 WAY VALVE	5 00	20 00	35 00
1	1.5 5	1	1	FILTER SCREEN	360 00	1440 00	2880 00
1	1.5 5	2	1	HEATER COIL AND CONT ROL	10.00	20 00	35 00
2	1.5 5	2	1	HEATER COIL AND CONT ROL	10 00	20 00	35 00
1	1.5 5	2	1	FILTER SCREWS	360 00	1440 00	2880.00
1	1.5 6	1	1	FAN	8.50	17 00	25.50
2	1.5 6	1	1	FAN	8.50	17 00	25 50
1	1.5 6	1	1	ABSORPTION BED	6 00	10.00	24.00
1	1.5 6	1	1	DIVERTER VALVE	1 00	3.00	6.00
2	1.5 6	1	1	DIVERTER VALVE	1.00	3 00	6.00
1	1.5 6	1	1	CONDENSOR/SEPARATOR	40.00	120 00	200.00
2	1.5 6	1	1	CONDENSOR/SEPARATOR	40.00	120 00	200 00
1	1.5 6	1	1	TIMER	2 00	7 00	12.00
1	1.5 6	1	1	SOLENOID VALVE	2.00	8.00	16 00
2	1.5 6	1	1	SOLENOID VALVE	2 00	8 00	16.00
1	1.5 6	1	1	COMPRESSOR	2 00	8 00	16 00
1	1.5 6	1	1	WATER REGULATOR	0 10	0 40	0.80
1	1.5 6	2	1	HEATER CONTROL	2 00	6.00	10 00
2	1.5 6	2	1	HEATER CONTROL	2 00	6 00	10 00
1	1.5 6	2	1	MAIN CONTROL	2 00	6 00	10 00
2	1.5 6	2	1	MAIN CONTROL	2 00	6 00	10.00
1	1.5 6	2	1	ELECTROLYTE MODULES	45 00	150 00	300 00
1	1.5 6	2	1	HEAT EXCHANGER	7 00	21 00	42 00
1	1.5 6	2	1	COMPRESSOR	8 00	16 00	32.00
1	1.5 6	2	1	4 WAY VALVES	5 00	20 00	40.00
1	1.5 6	2	1	CO2 REGULATOR	0.10	0.40	0 80
1	1.5 6	3	1	STARTUP HEATER ASSEM BLY	2 00	6.00	10 00
2	1.5 6	3	1	STARTUP HEATER ASSEM BLY	2.00	6 00	10 00
1	1.5 6	3	1	ELECTROLYTIC MODULE	5 00	20.00	40 00
1	1.5 6	3	1	FAN	1.00	3 00	5 00
2	1.5 6	3	1	FAN	1 00	3 00	5.00
1	1.5 7	1	1	BYPASS VALVE CONTROL	2.00	8 00	16 00
2	1.5 7	1	1	BYPASS VALVE CONTROL	2.00	8 00	16 00
1	1.5 7	1	1	BYPASS VALVE	5 00	20.00	40.00
2	1.5 7	1	1	BYPASS VALVE	5.00	20 00	40.00
1	1.5 8	1	1	HEATER CONTROL	2 00	8.00	16 00
2	1.5 8	1	1	HEATER CONTROL	2 00	8.00	16.00
1	1.5 8	1	1	CONDUCTIVITY SENSOR	1 00	4 00	8 00
2	1.5 8	1	1	CONDUCTIVITY SENSOR	1.00	4 00	8.00
1	1.5 8	1	1	SOLIDS SENSOR	1 28	5 00	10.00
2	1.5 8	1	1	SOLIDS SENSOR	1.28	5 00	10 00
1	1.5 8	1	1	SOLENOID VALVE	5.00	20 00	40.00
2	1.5 8	1	1	SOLENOID VALVE	5.00	20 00	40 00
1	1.5 8	2	1	PRESSURE SEALS	1.00	3.20	4 40
2	1.5 8	2	1	PRESSURE SEALS	1.00	3 20	4 40
1	1.5 8	2	1	SOLENOID VALVE	5.00	15.00	22.50
2	1.5 8	2	1	SOLENOID VALVE	5.00	15 00	22.50
1	1.5 8	2	1	HEATER SENSOR/CONTROL	0 70	2 10	3 20
2	1.5 8	2	1	HEATER SENSOR/CONTROL	0 70	2 10	3.20

TABLE 0-8 (Cont'd)

					10 YR TOTAL DAILY RATE UNIT WEIGHT		

1	2 1.1	1	1	FAILED POWER SUPPLY PACKAGE	30.60	0 00	25.00
2	2.1.1	1	1	FAILED POWER SUPPLY PACKAGE	30.60	0.00	25.00
1	2.1.1	1	1	FAILED COMPUTER	226.80	0 00	35.00
2	2.1.1	1	1	FAILED COMPUTER	226.80	0 00	35.00
1	2 1 1	1	1	FAILED SENSOR MOUNTING BLOCK	115.60	0.00	40.00
2	2 1.1	1	1	FAILED SENSOR MOUNTING BLOCK	115 60	0.00	40.00
1	2.1 1	1	1	FAILED PLATFORM ELECTRONICS	14 90	0 00	10 00
2	2.1.1	1	1	FAILED PLATFORM ELECTRONICS	14 90	0 00	10.00
1	2 1 1	1	1	FAILED STAR TRACKER MECHANICAL ASSEMBLY	48.00	0 00	25.00
2	2 1.1	1	1	FAILED STAR TRACKER MECHANICAL ASSEMBLY	48.00	0 00	25.00
1	2 1.1	1	1	FAILED STAR TRACKER ELECTRONICS	13 40	0.00	14.00
2	2.1 1	1	1	FAILED STAR TRACKER ELECTRONICS	13.40	0 00	14.00
1	2 1 1	1	1	FAILED HORIZON SCANNER MECHANICAL ASSY	48 00	0.00	25 00
2	2.1 1	1	1	FAILED HORIZON SCANNER MECHANICAL ASSY	48.00	0 00	25.00
1	2.1.1	1	1	FAILED HORIZON SCANNER ELECTRONICS	30 60	0.00	25.00
2	2.1.1	1	1	FAILED HORIZON SCANNER ELECTRONICS	30.60	0 00	25.00
1	2 1.1	2	1	FAILED CMG GYRO	16.40	0 00	6.00
1	2 1.1	2	1	FAILED CMG GIMBAL READING	8 20	0.00	6.00
1	2.1.1	2	1	FAILED CMG GIMBAL MOTOR	93.50	0.00	50.00
2	2.1.1	2	1	FAILED CMG GIMBAL MOTOR	93 50	0 00	50.00
1	2 1 1	2	1	FAILED CMG GIMBAL ANGLE PICK-OFF	1.80	0 00	1.00
2	2 1.1	2	1	FAILED CMG GIMBAL ANGLE PICK-OFF	1 80	0.00	1.00
1	2 1.1	2	1	FAILED CMG SERVO ELECTRONICS	43.40	0 00	15.00
2	2.1.1	2	1	FAILED CMG SERVO ELECTRONICS	43 40	0.00	15.00
1	2 1.1	2	1	FAILED CMG GIMBAL ANGLE SERVO MOTOR	46 80	0.00	25.00
2	2.1.1	2	1	FAILED CMG GIMBAL ANGLE SERVO MOTOR	46.80	0.00	25.00
1	2 1 1	2	1	FAILED CMG POWER SUPPLY	18.50	0.00	15.00
2	2.1.1	2	1	FAILED CMG POWER SUPPLY	18.50	0 00	15 00

TABLE 0-8 (Cont'd)

1	2.1.1	2	2	FAILED FILL VALVE F PRESSURE RELIEF	7.90	0.00	3.00
2	2.1.1	2	2	FAILED FILL VALVE G PRESSURE RELIEF	7.90	0.00	3.00
1	2.1.1	2	2	FAILED N2 START VALV E	7.00	0.00	2.00
2	2.1.1	2	2	FAILED N2 START VALV F	7.00	0.00	2.00
1	2.1.1	2	2	FAILED PRESSURE REGU LATOR	26.30	0.00	5.00
2	2.1.1	2	2	FAILED PRESSURE REGU LATOR	26.30	0.00	5.00
1	2.1.1	2	2	FAILED CHECK VALVE	0.26	0.00	1.00
2	2.1.1	2	2	FAILED CHECK VALVE	0.26	0.00	1.00
1	2.1.1	2	2	FAILED PROPELLANT FI LLED VALVE	0.52	0.00	2.00
2	2.1.1	2	2	FAILED PROPELLANT FI LLED VALVE	0.52	0.00	2.00
1	2.1.1	2	2	FAILED FUEL START VA LVE	7.00	0.00	2.00
2	2.1.1	2	2	FAILED FUEL START VA LVE	7.00	0.00	2.00
1	2.1.1	2	2	FAILED FLOW CONTROL VALVE	378.00	0.00	3.00
2	2.1.1	2	2	FAILED FLOW CONTROL VALVE	378.00	0.00	3.00
1	2.1.1	2	2	FAILED NOZZLES	200.00	0.00	5.00
1	2.1.1	2	3	FAILED FILL VALVE	7.90	0.00	3.00
2	2.1.1	2	3	FAILED FILL VALVE	7.90	0.00	3.00
1	2.1.1	2	3	VALVE, PRESSURANT STA RT	7.00	0.00	2.00
2	2.1.1	2	3	VALVE, PRESSURANT STA RT	7.00	0.00	2.00
1	2.1.1	2	3	FAILED PRESSURE REGU LATOR	52.60	0.00	5.00
2	2.1.1	2	3	FAILED PRESSURE REGU LATOR	52.60	0.00	5.00
1	2.1.1	2	3	FAILED RELIEF VALVE	15.80	0.00	3.00
2	2.1.1	2	3	FAILED RELIEF VALVE	15.80	0.00	3.00
1	2.1.1	2	3	FAILED CHECK VALVE	0.52	0.00	1.00
2	2.1.1	2	3	FAILED CHECK VALVE	0.52	0.00	1.00
1	2.1.1	2	3	FAILED PURGE AND FIL L VALVE	1.04	0.00	2.00
2	2.1.1	2	3	FAILED PURGE AND FIL L VALVE	1.04	0.00	2.00
1	2.1.1	2	3	FAILED ISOLATION VAL VE	12.48	0.00	2.00
2	2.1.1	2	3	FAILED ISOLATION VAL VE	12.48	0.00	2.00
1	2.1.1	2	3	FAILED BIPROPELLANT VALVE	504.00	0.00	4.00
2	2.1.1	2	3	FAILED BIPROPELLANT VALVE	504.00	0.00	4.00
1	2.1.1	2	3	FAILED THRUSTER NO77 LFS	279.70	0.00	7.00
1	2.2.1	1	1	FAILED SOLAR ARRAYS	24587.00	0.00	0.12
2	2.2.1	1	1	FAILED SOLAR ARRAYS	24587.00	0.00	0.12

TABLE 0-8 (Cont'd)

1	2.2.1	1	1	FAILED REGULATOR	55.00	0.00	15.00
2	2.2.1	1	1	FAILED REGULATOR	55.00	0.00	15.00
1	2.2.1	1	1	FAILED INVERTER	131.00	0.00	25.00
2	2.2.1	1	1	FAILED INVERTER	131.00	0.00	25.00
1	2.2.1	1	1	FAILED VOLTAGE REFER	0.90	0.00	2.50
				ENCE			
2	2.2.1	1	1	FAILED VOLTAGE REFER	0.90	0.00	2.50
				ENCE			
1	2.2.1	1	1	FAILED SYNCHRONIZER	0.90	0.00	2.50
				CLOCK			
2	2.2.1	1	1	FAILED SYNCHRONIZER	0.90	0.00	2.50
				CLOCK			
1	2.2.1	1	1	FAILED CIRCUIT BREAK	0.60	0.00	1.00
				ER			
2	2.2.1	1	1	FAILED CIRCUIT BREAK	0.60	0.00	1.00
				FR			
1	2.2.1	1	1	FAILED POWER CONTACT	0.70	0.00	1.00
				OR			
2	2.2.1	1	1	FAILED POWER CONTACT	0.70	0.00	1.00
				OR			
1	2.2.1	1	1	FAILED MONITOR METER	0.09	0.00	0.50
				(DC)			
2	2.2.1	1	1	FAILED MONITOR METER	0.09	0.00	0.50
				(DC)			
1	2.2.1	1	1	FAILED MONITOR METER	0.09	0.00	0.50
				(AC)			
2	2.2.1	1	1	FAILED MONITOR METER	0.09	0.00	0.50
				(AC)			
1	2.2.1	1	1	FAILED MONITOR METER	0.18	0.00	0.25
				SWITCHES			
2	2.2.1	1	1	FAILED MONITOR METER	0.18	0.00	0.25
				SWITCHES			
1	2.2.1	1	1	FAILED REMOTE CONTROL	0.35	0.00	0.25
				SWITCHES			
2	2.2.1	1	1	FAILED REMOTE CONTROL	0.35	0.00	0.25
				SWITCHES			
1	2.2.1	2	1	FAILED PCS	24360.00	0.00	4200.00
2	2.2.1	2	1	FAILED PCS	24360.00	0.00	4200.00
1	2.2.1	2	1	FAILED PUMP/MOTOR	75.00	0.00	25.00
2	2.2.1	2	1	FAILED PUMP/MOTOR	75.00	0.00	25.00
1	2.2.1	2	1	FAILED FREQUENCY DIS	18.90	0.00	2.00
				CRIMINATOR			
2	2.2.1	2	1	FAILED FREQUENCY DIS	18.90	0.00	2.00
				CRIMINATOR			
1	2.2.1	2	1	FAILED MAGNETIC PREAMPLIFIER	0.37	0.00	2.00
2	2.2.1	2	1	FAILED MAGNETIC PREAMPLIFIER	0.37	0.00	2.00
1	2.2.1	2	1	FAILED MAGNETIC AMPLIFIER	2.80	0.00	3.00
2	2.2.1	2	1	FAILED MAGNETIC AMPLIFIER	2.80	0.00	3.00
2	2.2.1	2	1	FAILED SILICON CONTROLLED RECTIFIERS	1.18	0.00	0.25
1	2.2.1	2	1	FAILED PARASITIC LOAD BANK	1.58	0.00	60.00
2	2.2.1	2	1	FAILED PARASITIC LOAD BANK	1.58	0.00	60.00

TABLE 0-8 (Cont'd)

1	2 2 1	2	1	0 BANK FAILED VOLTAGE SENSING CIRCUIT	1 50	0.00	2.00
2	2.2.1	2	1	FAILED VOLTAGE SENSING CIRCUIT	1 50	0.00	2.00
1	2.2.1	2	1	Y FAILED VOLTAGE REFERENCE	1 50	0.00	2.00
2	2 2.1	2	1	FAILED VOLTAGE REFERENCE	1 50	0.00	2.00
1	2.2.1	2	1	FAILED TRANSISTOR AMPLIFIER	1.10	0.00	1.50
2	2 2 1	2	1	FAILED TRANSISTOR AMPLIFIER	1.10	0.00	1.50
1	2 2.1	2	1	FAILED MAGNETIC AMPLIFIER	1.50	0.00	3.00
2	2 2.1	2	1	FAILED MAGNETIC AMPLIFIER	1.50	0.00	3.00
2	2 2 1	2	1	FAILED FEED BACK NETWORK	0.13	0.00	0.25
1	2 2.1	2	1	FAILED FULL WAVE RECTIFIER	1.60	0.00	1.50
2	2.2 1	2	1	FAILED FULL WAVE RECTIFIER	1.60	0.00	1.50
1	2.2 1	2	1	FAILED SATURATING CURRENT POTENTIAL TRANSFORMER	3.16	0.00	40.00
2	2.2 1	2	1	FAILED SATURATING CURRENT POTENTIAL TRANSFORMER	3.16	0.00	40.00
1	2.2 1	2	1	FAILED CIRCUIT BREAKER	0.35	0.00	1.00
2	2 2 1	2	1	FAILED CIRCUIT BREAKER	0.35	0.00	1.00
1	2.2 1	2	1	FAILED POWER CONTACTOR	0.35	0.00	1.00
2	2 2 1	2	1	FAILED POWER CONTACTOR	0.35	0.00	1.00
1	2.2 1	2	1	FAILED MONITOR METER (DC)	0.04	0.00	0.50
2	2.2 1	2	1	FAILED MONITOR METER (DC)	0.04	0.00	0.50
1	2 2 1	2	1	FAILED MONITOR METER (AC)	0.04	0.00	0.50
2	2.2 1	2	1	FAILED MONITOR METER (AC)	0.04	0.00	0.50
1	2.2 1	2	1	FAILED REMOTE CONTROL SWITCHES	0.17	0.00	0.25
2	2 2.1	2	1	FAILED REMOTE CONTROL SWITCHES	0.17	0.00	0.25
1	2 2.2	1	1	FAILED CIRCUIT BREAKER	2.10	0.00	1.00
2	2.2.2	1	1	FAILED CIRCUIT BREAKER	2.10	0.00	1.00
1	2 2 2	1	1	FAILED INVERTER RECTULATOR	358.00	0.00	40.00
2	2 2.2	1	1	FAILED INVERTER RECTULATOR	358.00	0.00	40.00
1	2.2.2	1	1	FAILED SOLAR ARRAY BATTERY CHARGER REGULATOR	16872.00	0.00	80.00

TABLE 0-8 (Cont'd)

2	2.2.2	1	1	FAILED SOLAR ARRAY BATTERY CHARGER REG.	16872.00	0.00	80 00
1	2.2.2	1	1	FAILED RI/BRAYTON BATTERY CHARGER REG.	6749.00	0.00	80 00
2	2.2.2	1	1	FAILED RI/BRAYTON BATTERY CHARGER REG.	6749.00	0.00	80.00
1	2.2.2	1	1	FAILED FUEL CELL	0 00	0.00	0.00
2	2.2.2	1	1	FAILED FUEL CELL	0.00	0.00	0.00
1	2.2.2	1	1	FAILED RECTIFIER FILTER	52.60	0 00	20 00
2	2.2.2	1	1	FAILED RECTIFIER FILTER	52.60	0.00	20 00
1	2.2.2	1	1	FAILED TRANSFORMER	2.75	0 00	25 00
2	2.2.2	1	1	FAILED TRANSFORMER	2 75	0.00	25 00
1	2.2.2	1	1	FAILED POWER CONTACT OR	2 45	0 00	1.00
2	2.2.2	1	1	FAILED POWER CONTACT OR	2.45	0.00	1.00
1	2.2.2	1	1	FAILED MONITOR METER DC	0.04	0.00	0.50
2	2.2.2	1	1	FAILED MONITOR METER DC	0 04	0.00	0.50
1	2.2.2	1	1	FAILED MONITOR METER AC	0 04	0.00	0.50
2	2.2.2	1	1	FAILED MONITOR METER AC	0.04	0 00	0.50
1	2.2.2	1	1	FAILED MONITOR METER SWITCHES	0.04	0.00	0.25
2	2.2.2	1	1	FAILED MONITOR METER SWITCHES	0.04	0.00	0.25
1	2.2.2	1	1	FAILED REMOTE CONTROL SWITCHES	0.11	0.00	0.25
2	2.2.2	1	1	FAILED REMOTE CONTROL SWITCHES	0 11	0.00	0 25
1	2.2.3	1	1	FAILED CCT. BKR. & GRO UND LEAKAGE DETECTOR	76 80	0.00	20 00
2	2.2.3	1	1	FAILED CCT. BKR. & GRO UND LEAKAGE DETECTOR	76 80	0.00	20 00
1	2.2.3	1	1	FAILED CCT. BKR/LOAD CONTROL UNIT	220.00	0.00	20 00
2	2.2.3	1	1	FAILED CCT. BKR/LOAD CONTROL UNIT	220.00	0 00	20.00
1	2.2.3	1	1	FAILED CURRENT SENSITIVE ELEMENT	30 30	0.00	1.50
2	2.2.3	1	1	FAILED CURRENT SENSITIVE ELEMENT	30 30	0 00	1.50
1	2.2.3	1	1	FAILED INDIVIDUAL LINE CCT. BREAKER	3 70	0.00	0.50
2	2.2.3	1	1	FAILED INDIVIDUAL LINE CCT. BREAKER	3.70	0 00	0.50
1	2.2.3	1	1	FAILED MONITOR METER (AC)	0.04	0 00	0.50
2	2.2.3	1	1	FAILED MONITOR METER (AC)	0 04	0.00	0 50
1	2.2.3	1	1	FAILED MONITOR METER SWITCHES	0 04	0.00	0 25
2	2.2.3	1	1	FAILED MONITOR METER SWITCHES	0.04	0 00	0.25

TABLE 0-8 (Cont'd)

				SWITCHES			
1	2 2 3	1	1	FAILED REMOTE CONTROL SWITCHES	0.47	0.00	0.25
2	2.2.3	1	1	FAILED REMOTE CONTROL SWITCHES	0.47	0.00	0.25
1	2 2.3	1	1	FAILED COT. BKR. & GRO UND LEAKAGE DETECTOR	76.80	0.00	20.00
2	2.2.3	1	1	FAILED COT. BKR. & GRO UND LEAKAGE DETECTOR	76.80	0.00	20.00
1	2 2.3	1	1	FAILED COT. BKR. & LOA D CONTROL UNIT	84.80	0.00	20.00
2	2.2.3	1	1	FAILED COT. BKR. & LOA D CONTROL UNIT	84.80	0.00	20.00
1	2.2 3	1	1	FAILED CURRENT SENSITIVE ELEMENT	11.50	0.00	12.00
2	2 2 3	1	1	FAILED CURRENT SENSITIVE ELEMENT	11.50	0.00	12.00
1	2 2 3	1	1	FAILED INDIVIDUAL LINE COT. BREAKER	1.40	0.00	0.50
2	2 2 3	1	1	FAILED INDIVIDUAL LINE COT. BREAKER	1.40	0.00	0.50
1	2 2 3	1	1	FAILED MONITOR METERS	0.04	0.00	0.50
2	2 2.3	1	1	FAILED MONITOR METERS	0.04	0.00	0.50
1	2 2 3	1	1	FAILED MONITOR METERS SWITCHES	0.04	0.00	0.25
2	2 2.3	1	1	FAILED MONITOR METERS SWITCHES	0.04	0.00	0.25
1	2 2 3	1	1	FAILED REMOTE CONTROL SWITCHES	0.18	0.00	0.25
2	2.2 3	1	1	FAILED REMOTE CONTROL SWITCHES	0.18	0.00	0.25
1	2 3.1	1	1	PARTITION FASTENERS	25.00	0.00	0.25
1	2 3 1	1	1	ANTENNAS AND SOLAR CELLS	0.00	0.00	0.00
2	2 3 1	1	1	ANTENNAS AND SOLAR CELLS	0.00	0.00	0.00
1	2 3.1	1	1	WORN AIRLOCK LATCH MECHANISM ASSEMBLIES	1000.00	0.00	50.00
1	2.4.1	1	1	FAILED KU BAND REFLECTOR, FEED POSITIONER	1408.00	0.00	440.00
2	2 4 1	1	1	FAILED KU BAND REFLECTOR, FEED POSITIONER	1408.00	0.00	440.00
1	2 4 1	1	1	FAILED KU BAND MIXER/MULTIPLEXER	8.80	0.00	20.00
2	2.4 1	1	1	FAILED KU BAND MIXER/MULTIPLEXER	8.80	0.00	20.00
1	2 4.1	1	1	FAILED KU BAND FERRITE SWITCHES/SQUADRIPE	1.40	0.00	6.00
2	2.4.1	1	1	FAILED KU BAND FERRITE SWITCHES/SQUADRIPE	1.40	0.00	6.00
1	2.4 1	1	1	FAILED KU BAND FM TRANSMITTER	60.00	0.00	25.00
2	2.4 1	1	1	FAILED KU BAND FM TRANSMITTER	60.00	0.00	25.00
2	2 4.1	1	1	FAILED FM TRANSMITTER	6.60	0.00	10.00

TABLE 0-8 (Cont'd)

2	2.4 1	1	1	R MODFM FAILED KU BAND FM RF CEIVER	2 40	0.00	10 00
2	2.4.1	1	1	FAILED FM RECEIVER M ODEM	1 90	0.00	5 00
1	2 4.1	1	1	FAILED KU BAND PM TR ANSMITTER	2 20	0.00	10.00
2	2.4 1	1	1	FAILED KU BAND PM TR ANSMITTER	2 20	0.00	10.00
2	2 4.1	1	1	FAILED PM TRANSMITTE R MODFM	1.00	0.00	2.50
2	2.4 1	1	1	FAILED KU BAND PM RF CEIVER	2.80	0 00	10 00
2	2.4 1	1	1	FAILED PM RECEIVER M ODEM	3.30	0 00	5 00
1	2.4 1	2	1	FAILED S-BAND DIPLEX ER/SWITCHES	0.84	0 00	6 00
2	2 4 1	2	1	FAILED S-BAND DIPLEX ER/SWITCHES	0 84	0.00	6 00
1	2.4.1	2	1	FAILED S-BAND FERRIT E SWITCHES	0 07	0 00	5.50
2	2.4 1	2	1	FAILED S-BAND FERRIT E SWITCHES	0.07	0.00	5.50
1	2 4.1	2	1	FAILED S-BAND PM TRA NSPONDER	47.00	0.00	14.00
2	2.4 1	2	1	FAILED S-BAND PM TRA NSPONDER	47.00	0.00	14 00
1	2.4 1	2	1	FAILED S-BAND FM TRA NSMITTER	42.00	0.00	12 00
2	2.4 1	2	1	FAILED S-BAND FM TRA NSMITTER	42.00	0 00	12.00
1	2 4.1	2	1	FAILED TRANSPONDER	12 00	0.00	10.00
2	2 4.1	2	1	FAILED TRANSPONDER	12 00	0.00	10.00
1	2 4.1	2	1	FAILED TRANSMITTER M ODEM	1.50	0 00	2 50
2	2 4.1	2	1	FAILED TRANSMITTER M ODEM	1 50	0.00	2.50
1	2 4 2	1	1	UHF SOLID STATE SWIT CH MULTIPLEXER	0 84	0.00	12 00
2	2 4 2	1	1	UHF SOLID STATE SWIT CH MULTIPLEXER	0 84	0.00	12.00
1	2.4 2	1	1	FAILED UHF FM TRANS MITTER	0.70	0.00	1.50
2	2.4.2	1	1	FAILED UHF FM TRANS MITTER	0.70	0 00	1.50
1	2.4 2	1	1	FAILED UHF TRANSMITT ER MODFM	0 56	0.00	2.00
2	2.4.2	1	1	FAILED UHF TRANSMITT ER MODFM	0.56	0.00	2.00
1	2 4.2	1	1	FAILED UHF FM VIDEO RECEIVER	3 50	0.00	3.00
2	2 4.2	1	1	FAILED UHF FM VIDEO RECEIVER	3 50	0 00	3.00
1	2 4 2	1	1	FAILED UHF PM DATA R ECEIVER	3 40	0.00	3.00
2	2 4.2	1	1	FAILED UHF PM DATA R ECEIVER	3 40	0 00	3.00

TABLE 0-8 (Cont'd)

1	2 4.2	1	1	FAILED VIDEO RECEIVER D MODEM	8.60	0 00	2 50
2	2.4 2	1	1	FAILED VIDEO RECEIVER R MODEM	8.60	0 00	2.50
1	2.4 2	1	1	FAILED DATA RECEIVER MODEM	5.70	0 00	2 50
2	2 4.2	1	1	FAILED DATA RECEIVER MODEM	5 70	0 00	2 50
1	2 4 2	2	1	SOLID STATE SWITCH/D QUADRUPLER	0.84	0.00	12 00
1	2.4.2	2	1	FAILED VHF VOICE RAN GING T/R	84 00	0.00	15 00
2	2 4 2	2	1	FAILED VHF VOICE RAN GING T/R	84 00	0 00	15.00
1	2 4.2	2	1	FAILED RANGING MODEM	40 00	0 00	9.00
2	2 4.2	2	1	FAILED RANGING MODEM	40 00	0 00	9 00
1	2 4 2	2	1	FAILED VOICE MODEM	3 80	0.00	5 00
2	2 4 2	2	1	FAILED VOICE MODEM	3 80	0.00	5 00
1	2 4 2	2	1	FAILED VHF DATA T/R	84 00	0 00	15 00
2	2 4 2	2	1	FAILED VHF DATA T/R	84 00	0 00	15 00
1	2 4.2	2	1	FAILED DATA MODEM	1 70	0 00	4 00
2	2 4.2	2	1	FAILED DATA MODEM	1 70	0 00	4 00
1	2 4 2	3	1	FAILED SOLID STATE S WITCH/DUPLEXER	1 76	0 00	18 00
1	2 4 2	3	1	FAILED VHF FM XMTR/P CVR	1 64	0 00	2.00
2	2 4 2	3	1	FAILED VHF FM XMTR/P CVR	1 64	0 00	2.00
1	2 4 2	3	1	FAILED MODEM	6 56	0 00	8 00
2	2 4 2	3	1	FAILED MODEM	6.56	0 00	8 00
1	2 4 3	1	1	FAILED TV CONTROL MO DEM	17.10	0 00	3.00
2	2.4.3	1	1	FAILED TV CONTROL MO DEM	17.10	0 00	3.00
1	2 4 3	1	1	FAILED ANALOG SYNC/T EST MODEM	5.00	0 00	5 00
2	2 4 3	1	1	FAILED ANALOG SYNC/T EST MODEM	5 00	0 00	5 00
1	2 4 3	1	1	FAILED DIGITAL DATA MODEM	5 00	0 00	5 00
2	2 4.3	1	1	FAILED DIGITAL DATA MODEM	5 00	0 00	5 00
2	2 5 1	1	1	CONTROLLER/ARITHMETIC MODULES BOOK MODULE	48 75	0 00	2 50
2	2 5 1	1	1	MAIN MEMORY BOOK MOD ULE	2 50	0 00	2 50
1	2 5.1	1	1	MAGNETIC DISC	5 00	0 00	5.00
2	2 5 1	1	1	MAGNETIC DISC	5.00	0.00	5.00
1	2 5 1	1	1	TAPE TRANSPORTS	101.60	0 00	40 00
2	2 5 1	1	1	TAPE TRANSPORTS	101 60	0 00	40 00
2	2 5 1	1	1	CIRCUIT BOARD	9.00	0 00	0 25
1	2.5.1	1	1	CATHODE RAY TUBE	17 50	0 00	2 00
2	2 5 1	1	1	KEYBOARD TERMINAL	6.75	0 00	6 75
					EXPT TOTAL DAILY RATE BATCH SIZE		

1	3 2 1	1	1	LANCUIR PRORF, DAMA	0 10	0 00	0 10

TABLE 0-8 (Cont'd)

1	3 7.1	1	1	GED			
1	3 7.1	1	2	MAGNETIC TAPE	2 50	0 00	2 50
1	3.2.1	2	1	MAGNETIC TAPE	7 50	0 00	2.50
1	3 7.1	2	2	MAGNETIC TAPES	5.00	0.00	2.50
				PRESSURIZED CONTAINERS	250.00	0.00	50.00
1	3 2.1	2	2	MAGNETIC TAPE	5 00	0.00	2.50
1	3 3.2	1	1	PCG SHELLS	0 70	0 00	0.35
2	3 4.3	2	1	THERMIST PROBE	1 08	0 01	0.00
2	3 5.1	2	1	INSTRUMENT WASTE	5 00	0 00	5.00
1	3 5.1	2	2	NEEDLE	0.20	0.00	0.00
1	3 5.1	2	6	NEEDLE	0.10	0.00	0.00
1	3 5.1	2	6	INSTRUMENTS	4 00	0.00	0.15
1	3 5.1	2	8	INSTRUMENTATION	10 00	0 03	0.03
1	3 5.1	2	9	INSTRUMENTATION	10 00	0.03	0.03
1	3 5.1	2	10	NEEDLE	0.10	0.00	0.05
1	3 5.1	2	11	INSTRUMENTS	1.50	0.00	0.03
1	3.5.1	2	13	NEEDLES	0.20	0.00	0.00
1	3 5.1	2	14	NEEDLE	0 10	0.00	0 00
1	3 5.1	4	3	NEEDLES	1.00	0 00	0.02
1	3 5.1	5	2	CHEMICALS (BLOOD SUGAR ETC.)	0 25	0 00	0.00
1	3 5.1	5	4	CHEMICALS (BLOOD SUGAR) GAS ANALYSIS	0.25	0.00	0 00
1	3.5.1	5	4	CHEMICALS (BLOOD SUGAR) URINE N	0 25	0 00	0.00
1	3.5.1	5	6	CHEMICALS (BLOOD, SUGAR) URINE N.	0 25	0 00	0 00
1	3 5.1	6	1	NEEDLE	1 50	0.00	0.03
1	3.5.1	6	5	INSTRUMENTS	5 00	0 00	0.80
1	3 5.1	7	1	NEEDLE	0 40	0.00	0.01
1	3 5.1	7	2	NEEDLE	0 10	0 00	0.00
1	3 5.2	1	1	RECORDING TAPE	10 00	0 00	0 20
1	3 5.2	1	2	RECORDING TAPE	10 00	0.00	0 20
1	3.5.2	1	3	RECORDING TAPE	10 00	0 00	0.60
1	3 5.2	1	4	RECORDING TAPE	1.50	0.00	0.12
1	3 5.2	1	5	RECORDING TAPE	1 50	0.00	0.12
1	3 5.2	1	6	RECORDING TAPE	1.00	0.00	0 08
1	3 5.2	1	7	RECORDING TAPE	1 00	0.00	0 08
1	3 5.2	1	8	RECORDING TAPE	10 00	0 00	0 80
1	3 5.2	3	1	RECORDING TAPE	15 00	0.00	0.30
1	3 5.2	4	1	RECORDING TAPE	1 00	0 00	0.08
1	3 5.2	4	1	INSTRUMENTS	1.00	0 00	0.08
1	3.5.2	4	2	RECORDING TAPE	2 00	0 00	0.11
1	3 5.2	4	2	INSTRUMENTATION	5.00	0 00	0 30
1	3 5.2	4	3	RECORDING TAPE	2 00	0 00	0 11
1	3.5.2	4	4	RECORDING TAPE	1 00	0 00	0 08
1	3 5.2	4	5	RECORDING TAPE	1 00	0.00	0 08
1	3 5.2	4	6	RECORDING TAPE	1 00	0.00	0 08
1	3.5.2	4	7	RECORDING TAPE	1.00	0.00	0 06
1	3.5.2	4	7	NEEDLES	1 00	0 00	0.01
1	3 5.2	4	8	RECORDING TAPE	0.50	0 00	0.04
1	3.5.2	4	9	RECORDING TAPE	1.50	0 00	0 12
1	3.5.2	4	10	RECORDING TAPE	2 00	0 00	0 11
1	3.6.2	1	1	EXPERIMENTAL FACILITY	1100.00	0 00	1100.00
2	3 6.2	1	1	EXPERIMENTAL FACILITY	1100 00	0 00	1100.00

TABLE 0-8 (Cont'd)

1	3 6 2	1	1	Y	ACCESSORY TOOLING	1320 00	120 00	120 00
2	3 6 2	1	1		ACCESSORY TOOLING	1320 00	120 00	120 00
1	3 7 1	1	1		COMPRESSOR (CRYOGENI	12.00	0.00	12 00
					C)			
1	3 7 1	2	f 1		COMPRESSOR (CRYOGENI	12.00	0 00	12 00
					C)			
1	3 7 1	4	1		FAILED CRYOGENIC COM	12 00	0 00	12.00
					PRESSOR			

Y

TABLE 0-9
SEARCH REPORT #7 - MATERIAL ORIGINATED IN MAN ORIENTED
FUNCTION, EXCEEDS 100 LBS/YEAR FOR 100 MAN STATION,
IS CONTAMINATED OR PATHOGENIC, AND IS TEXTILE OR PAPER

SEARCH NO. 7

THE SEARCH HAS USED ' OR/AND ' LOGIC ON THE FOLLOWING KEYWORDS

'OR' ITEM	'AND' ITEM	KEYWORD	VECTOR
1	1	1. (S/C FUNCTION)	16
1	2	100. (QUANTITY { 3} - LOWER LIMIT	9
1	3	CONTAMINATED (ATTRIBUTE)	11
2		PATHOGENIC (ATTRIBUTE)	11
1	4	TEXTILE (ATTRIBUTE)	11
2	-	PAPER (ATTRIBUTE)	11

THE FOLLOWING ITEMS WERE RETRIEVED

KEYWORD NO.	GROUP KEY	EQUIP./FXPT NO.	WASTE SOURCE NO.	WASTE ITEM	QUANTITIES		
					12 MEN	50 MEN	100 MEN
1, 1	1 2 2	1	1	SOILED SHIRT SHORT S LFFVE	428.00	1782.00	3564.00
1, 2							
2, 3							
1, 4							
1, 1	1.2.2	1	1	SOILED TROUSERS	609.00	2541.00	5082.00
1, 2							
2, 3							
1, 4							
1, 1	1 2.2	1	1	SOILED UNDERSHOPTS	440.00	1836.00	3672.00
1, 2							
2, 3							
1, 4							
1, 1	1 2 2	1	1	SOILED UNDERSHIRTS	440.00	1836.00	3672.00
1, 2							
2, 3							
1, 4							
1, 1	1.2.2	1	1	SOILED SOCKS (PAIR)	103.00	432.00	864.00
1, 2							
2, 3							
1, 4							
1, 1	1 2 2	3	1	ABSORBENT WIPES	38 60	160.80	321 60
1, 2							
2, 3							
2, 4							
1, 1	1 4 1	1	1	WASTE CONTAINER (FILL LFD)	940.00	3915 00	7795.00
1, 2							
2, 3							

TABLE 0-9 (Cont'd)

2, 4 1, 1	1 4 1	1	2	WASTE CONTAINER (FIL LED)	1387.00	5742 00	11450 00
1, 2 2, 3 2, 4 1, 1	1 4 1	1	3	WASTE CONTAINER (FIL LED)	2000 00	8333.00	16666 00
1, 2 2, 3 2, 4							

TABLE 0-10
SEARCH REPORT #8 - MATERIAL IS SOLID AND REQUIRES
CLEANING FOR RECLAMATION OR IS TEXTILE AND REQUIRES
LAUNDERING FOR RECLAMATION

SEARCH NO. 8

f
THE SEARCH WAS USED * OR/AND * LOGIC ON THE FOLLOWING KEYWORDS

*OP*ITEM	*AND*ITEM	KEYWORD	VECTOR
1	1	SOLID (STATE)	10
	2	CLEAN (RECLAMATION REQUIREMENT)	14
2	1	TEXTILE (ATTRIBUTE)	11
	2	LAUNDED (RECLAMATION REQUIREMENT)	14

THE FOLLOWING ITEMS WERE RETRIEVED

KEYWORD NO.	GROUP KEY	EQUIP /EXPT NO	WASTE SOURCE NO.	WASTE ITEM	QUANTITIES		
					12 MFN	50 MFN	100 MEN

1	1 2.1	1	1	USED INFLATABLE PILL OW	16 00	67 00	133 00
1	1 2.1	1	1	USED INFLATABLE MATT RESS	48.00	200 00	400 00
2	1 2 2	1	1	SOILED SHIRT SHORT S LFFVF	428.00	1782 00	3564.00
2	1.2 2	1	1	SOILED TROUSERS	609 00	2541.00	5082 00
2	1 2 2	1	1	SOILED JACKET, LIGHT WEIGHT	8.00	34.00	68.00
2	1.2 2	1	1	SOILED UNDERSHORTS	440 00	1836 00	3672.00
2	1.2 2	1	1	SOILED UNDERSHIRTS	440.00	1836.00	3672.00
2	1.2.2	1	1	SOILED SOCKS (PAIR)	103 00	432 00	864.00
1	1.2.2	1	1	SOILED SHOES (PAIR)	7 00	28 00	56.00
1	1 2.2	2	1	BLANKET	24 00	100 00	200.00
1	1 2.2	3	1	ABSORBENT WIPES	38.60	160.80	321 60
1	1 4.1	1	1	FILTERS (BACTERIA CO NTROL)	2.60	10.80	21.60
1	1.4 1	1	2	FILTERS (BACTERIAL C ONTROL)	2 60	10 80	21.60
1	1 4.1	1	3	FILTERS (BACTERIAL C ONTROL)	2 60	10 80	21.60
1	1.4 1	1	3	FILTERS, EFFCAL AND V OMITIS COLLECTOR	240 00	1000.00	2000.00
1	1.4 2	1	1	FILTERS/TRAPS	156 00	650 00	1300.00
2	1.4 2	1	1	TOWELS	1400 00	5880 00	11760 00
2	1 4 2	1	1	WASHCLOTHS	150 00	627.00	1254.00
2	1 4.2	1	3	USED TOWELS	1200.00	5000 00	1000.00
					10 YP TOTAL DAILY PATF UNIT WEIGHT		

1	2.1 1	2	2	FAILED FILTER	8 76	0.00	1 00
1	2.5 1	2	1	DISCARDED PICTURES	2550 00	0.70	0.00
1	2 5 1	2	1	EDITING FILM SCRAPS	2550 00	0 70	0 00

TABLE 0-10 (Cont'd)

					EXPT	TOTAL	DAILY RATE	BATCH SIZE
					*****	*****	*****	*****
1	3.3 1	2	1	VERMICULITE	4.00	0.00	4.00	
1	3.4.4	1	1	CONTAINERS	4.00	0.00	1.30	
1	3.4.4	1	1	SCALPEL	1.00	0.00	0.30	
1	3.4.4	2	1	GLASSWARE	8.00	0.00	9.00	
1	3.4.4	5	1	CONTAINERS	24.00	0.00	8.00	
1	3.4.4	5	1	VERMICULITE	5.00	0.00	1.70	
1	3.4.4	6	1	VERMICULITE	5.00	0.00	5.00	
1	3.4.4	7	1	VERMICULITE	7.00	0.00	0.00	
1	3.5.1	2	2	SYRINGE	10.80	0.00	0.18	
1	3.5.1	2	2	NEEDLE	0.20	0.00	0.00	
1	3.5.2	4	7	NEEDLES	1.00	0.00	0.01	

SUPPORT LIFE FUNCTIONS

MONITOR AND MAINTAIN CREW HEALTH AND SAFETY

11/30/70

RUN NO. ** 2 **

PAGE 1

S/C SUBSYSTEM MEDICAL DISPENSARY

GROUP KEY 1.1.1

BASIC FUNCTION SUPPORT LIFE

FUNCTIONAL REQUIREMENT MAINTAIN AND MONITOR CREW HEALTH
AND SAFETY

** EQUIPMENT/EXPERIMENT NO. 1 ROUTINE EXAMINATION OF CREW MEMB
ERS

S/C AREAS DISPENSARY

*** WASTE SOURCE NO. 1 ROUTINE EXAMINATION OF CREW MEMBERS

DOCUMENT NO. 1.1.1.1.1*

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, REVISION NO.1, SEPTEMBER 1
, 1969, NASA OMSF.

REFERENCE NO. 2 .. DEFINITION OF SPACE FLIGHT MEDICAL KITS
A RATIONALE, BROOKS AIR FORCE BASF, TEXAS
, AMD TR 67-1, MAY 1967.

***** WASTE ITEM NO. 1 TONGUE DEPRESSOR

STATE SOLID

DENSITY 40.00 LBS/CU. FT.

ATTRIBUTES WOOD, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ...

NO. OF MEN	RATE(LBS/YEAR)
------------	----------------

12	0.75
----	------

50	3.10
----	------

100	6.20
-----	------

RECLAMATION ACTION .. STERILIZE

***** WASTE ITEM NO. 2 THERMOMETERS

STATE SOLID

DENSITY 240.00 LBS/CU. FT.

ATTRIBUTES GLASS, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION BOROSILICATES

GENERATION DATA ...

NO. OF MEN	RATE(LBS/YEAR)
------------	----------------

12	0.88
----	------

50	3.70
----	------

100	7.40
-----	------

RECLAMATION ACTION .. STERILIZE

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

PAGE 2

S/C SUBSYSTEM MEDICAL DISPENSARY
GROUP KEY 1.1.1

** EQUIPMENT/EXPERIMENT NO. 1 ROUTINE EXAMINATION OF CREW MEMBERS

**** WASTE SOURCE NO. 1 ROUTINE EXAMINATION OF CREW MEMBERS

***** WASTE ITEM NO. 3 SHEETS

STATE SOLID

DENSITY 6.00 LBS/CU. FT.

ATTRIBUTES PAPER CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ...

NO. OF MEN

RATE (LBS/YEAR)

12

87.00

50

365.00

100

730.00

RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 4 PACKAGING MATERIAL

STATE SOLID

DENSITY 2.50 LBS/CU. FT.

ATTRIBUTES PAPER, PLASTIC, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE POLYETHYLENE

GENERATION DATA ...

NO. OF MEN

RATE (LBS/YEAR)

12

0.62

50

2.60

100

5.20

RECLAMATION ACTION .. REUSE AS IS

S/C SUBSYSTEM MEDICAL DISPENSARY

GROUP KEY 1.1.1

** EQUIPMENT/EXPERIMENT NO. 2 ILLNESS EVENT

S/C ARFAS DISPENSARY

**** WASTE SOURCE NO. 1 ILLNESS EVENT

DOCUMENT NO. 1.1.1.2.1*

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH ORBITAL MISSIONS, REVISION NO.1, SEPTEMBER 1, 1969, NASA OMSF.

REFERENCE NO. 2 .. DEFINITION OF SPACE FLIGHT MEDICAL KITS A RATIONALE, BROOKS AIR FORCE BASE, TEXAS, AMD TR 67-1, MAY 1967.

REFERENCE NO. 3 .. USE OF THE BEN FRANKLIN SUBMERSIBLE AS A SPACESTATION ANALOG, VOLUME II PSYCHOLOGY AND PHYSIOLOGY OSR-70-8, CONTRACT NAS 8-30 172

***** WASTE ITEM NO. 1 MEDICATION TUBES

STATE SOLID

DENSITY 10.36 LBS/CU. FT.

ATTRIBUTES PLASTIC, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYSTYRENE

- GENERATION DATA ...

NO. OF MEN

RATE (LBS/YEAR)

12

7.30

50

14.60

100

21.90

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 SPRAY BOTTLES

STATE SOLID

DENSITY 41.47 LBS/CU. FT.

ATTRIBUTES PLASTIC CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYSTYRENE

GENERATION DATA ...

NO. OF MEN

RATE (LBS/YEAR)

12

0.48

50

8.00

100

14.60

RECLAMATION ACTION .. N/R

11/1/70

FORM NO. 2

11

S/C SUBSYSTEM 1.11.1 DISPENSARY

WASTE ITEM NO. 1.1.1

WASTE ITEM TYPE/EXPERIMENT NO. 2 ILLNESS EVENT

WASTE ITEM NO. 1 ILLNESS EVENT

WASTE ITEM NO. 1 DISPOSABLE FACE MASKS

STATE SOLID

DENSITY 0.70 LBS/CU. FT.

ATTRIBUTES PAPER, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ...

NO. OF GEN

RATE(LBS/YEAR)

12

3.65

50

7.30

100

10.95

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 4 PILL BOXES

STATE SOLID

DENSITY 11.40 LBS/CU. FT.

ATTRIBUTES PLASTIC, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYSTYRENE

GENERATION DATA ...

NO. OF GEN

RATE(LBS/YEAR)

12

3.65

50

7.30

100

10.35

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 5 MEDICATION BOTTLES

STATE SOLID

DENSITY 5.20 LBS/CU. FT.

ATTRIBUTES PLASTIC, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYSTYRENE

GENERATION DATA ...

NO. OF GEN

RATE(LBS/YEAR)

12

0.20

50

2.00

100

3.65

RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

PAGE 5

S/C SUBSYSTEM MEDICAL DISPENSARY
GROUP KEY 1.1.1

** EQUIPMENT/EXPERIMENT NO. 2ILLNESS EVENT

*** WASTE SOURCE NO. 1 ILLNESS EVENT

***** WASTE ITEM NO. 6 BAND AIDS

STATE SOLID

DENSITY 0.30 LBS/CU. FT.

ATTRIBUTES PLASTIC,PAPER,CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION PLASTIC,CELLULOSE

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

0.03

50

0.08

100

0.16

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 7 DRESSINGS AND ADHESIVES

STATE SOLID

DENSITY 6.07 LBS/CU. FT.

ATTRIBUTES PLASTIC,PAPER,CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE,PLASTIC

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

0.00

50

0.02

100

0.08

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 8 CATHETER

STATE SOLID

DENSITY 8.26 LBS/CU. FT.

ATTRIBUTES PLASTIC,CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYVINYL

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

0.00

50

0.00

100

0.05

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

PAGE 6

S/C SUBSYSTEM MEDICAL DISPENSARY

GROUP KEY 1.1.1

* EQUIPMENT/EXPERIMENT NO. 2 ILLNESS EVENT

*** WASTE SOURCE NO. 1 ILLNESS EVENT

***** *****

***** WASTE ITEM NO. 9 ANTISEPTIC SOLUTION

STATE SOLID

DENSITY 4.52 LBS/CU. FT.

ATTRIBUTES GLASS, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION BOROSILICATES

GENERATION DATA ...

NO. OF GEN

RATE (LBS/YEAR)

12

0.04

50

0.12

100

0.48

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 10 SPLINT

STATE SOLID

DENSITY 4.90 LBS/CU. FT.

ATTRIBUTES METAL, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION STEEL

GENERATION DATA ...

NO. OF GEN

RATE (LBS/YEAR)

12

0.00

50

0.00

100

0.10

RECLAMATION ACTION .. STERILIZE

***** WASTE ITEM NO. 11 GLOVES

STATE SOLID

DENSITY 0.70 LBS/CU. FT.

ATTRIBUTES PLASTIC, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYETHYLENE

GENERATION DATA ...

NO. OF GEN

RATE (LBS/YEAR)

12

0.24

50

0.60

100

1.04

RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

PAGE 7

S/C SUBSYSTEM MEDICAL DISPENSARY
GROUP KEY 1.1.1

** EQUIPMENT/EXPERIMENT NO. 2 ILLNESS EVENT

**** WASTE SOURCE NO. 1 ILLNESS EVENT

***** WASTE ITEM NO. 12 EYE PATCHES

STATE SOLID

DENSITY 0.70 LBS/CU. FT.

ATTRIBUTES PAPER,CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

0.04

50

0.40

100

1.03

RECLAMATION-ACTION .. N/R

***** WASTE ITEM NO. 13 PACKAGING

STATE SOLID

DENSITY 0.08 LBS/CU. FT.

ATTRIBUTES PAPER,CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

0.75

50

2.00

100

3.65

RECLAMATION ACTION .. REUSE AS IS

11/30/70

RUN NO. ** 2 **

PAGE 8

S/C SUBSYSTEM DENTAL DISPENSARY
GROUP KEY 1.1.2

BASIC FUNCTION SUPPORT LIFE
FUNCTIONAL REQUIREMENT MAINTAIN AND MONITOR CREW HEALTH
AND SAFETY

** EQUIPMENT/EXPERIMENT NO. 1 ROUTINE EXAMINATION AND ILLNESS
EVENT
S/C AREAS DISPENSARY

**** WASTE SOURCE NO. 1 ROUTINE EXAMINATION AND ILLNESS EVENT
DOCUMENT NO. 1.1.2.1.1*

REFERENCE NO. 1 .. SANITATION AND PERSONAL HYGIENE DURING A
ERCSpace MISSIONS MRL TDR 62-68 LIFE SUP
PORT SYSTEMS LABORATORY, WRIGHT-PATTERSON
AIR FORCE BASE, JUNE 1962.

***** WASTE ITEM NO. 1 DENTAL PROBE
STATE SOLID
DENSITY 490.00 LBS/CU. FT.
ATTRIBUTES METAL CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION STEEL
GENERATION DATA ...
NO. OF MEN RATE(LBS/YEAR)
12 1.56
50 15.60
100 31.20
RECLAMATION ACTION .. STERILIZE

***** WASTE ITEM NO. 2 DENTAL MIRROR
STATE SOLID
DENSITY 490.00 LBS/CU. FT.
ATTRIBUTES METAL CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION STEEL
GENERATION DATA ...
NO. OF MEN RATE(LBS/YEAR)
12 0.26
50 26.00
100 52.00
RECLAMATION ACTION .. STERILIZE

11/30/70

RUN NO. ** 2 **

PAGE 9

S/C SUBSYSTEM DENTAL DISPENSARY
GROUP KEY 1.1.2

** EQUIPMENT/EXPERIMENT NO. 1 ROUTINE EXAMINATION AND ILLNESS
EVENT

**** WASTE SOURCE NO. 1 ROUTINE EXAMINATION AND ILLNESS EVENT

***** WASTE ITEM NO. 3 EXTRACTION PLIERS

STATE SOLID

DENSITY 490.00 LBS/CU. FT.

ATTRIBUTES METAL CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION STEEL

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

0.00

50

0.00

100

0.20

RECLAMATION ACTION .. STERILIZE

***** WASTE ITEM NO. 4 SCALPEL

STATE SOLID

DENSITY 490.00 LBS/CU. FT.

ATTRIBUTES METAL CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION STEEL

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

0.00

50

0.00

100

0.06

RECLAMATION ACTION .. STERILIZE

***** WASTE ITEM NO. 5 DRUG AND BOTTLE

STATE SOLID

DENSITY 52.57 LBS/CU. FT.

ATTRIBUTES GLASS CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION BOROSILICATES

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

0.04

50

0.12

100

0.16

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM DENTAL DISPENSARY
 GROUP KEY 1.1.2

** EQUIPMENT/EXPERIMENT NO. 1 ROUTINE EXAMINATION AND ILLNESS
 EVENT

*** WASTE SOURCE NO. 1 ROUTINE EXAMINATION AND ILLNESS EVENT

*** *****

***** WASTE ITEM NO. 6 ANAESTHETIC BOTTLE

STATE SOLID

DENSITY 52.57 LBS/CU. FT.

ATTRIBUTES GLASS CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION BOROSILICATES

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

0.00

50

0.00

100

0.04

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 7 DRESSING PAD

STATE SOLID

DENSITY 0.30 LBS/CU. FT.

ATTRIBUTES GAUZE CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

0.00

50

0.00

100

0.00

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 8 SYRINGE

STATE SOLID

DENSITY 35.60 LBS/CU. FT.

ATTRIBUTES PLASTIC CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYSTYRENE

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

0.00

50

0.00

100

0.01

RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

PAGE 11

S/C SUBSYSTEM DENTAL DISPENSARY
GROUP KEY 1.1.2

** EQUIPMENT/EXPERIMENT NO. 1 ROUTINE EXAMINATION AND ILLNESS
EVENT

*** WASTE SOURCE NO. 1 ROUTINE EXAMINATION AND ILLNESS EVENT

***** WASTE ITEM NO. 9 HEAD REST COVERING

STATE SOLID

DENSITY 6.07 LBS/CU. FT.

ATTRIBUTES PAPER CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ...

NO. OF YEN

RATE(LBS/YEAR)

12

0.52

50

5.20

100

10.40

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 10 TOOTH

STATE SOLID

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES BONE DISEASED

ELEMENTS PRESENT ..

COMPOSITION CALCIUM

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

0.00

50

0.00

100

0.00

RECLAMATION ACTION .. N/R

S/C SUBSYSTEM DISPENSARY HOUSEKEEPING
GROUP KEY 1.1.3

BASIC FUNCTION SUPPORT LIFE
FUNCTIONAL REQUIREMENT MAINTAIN AND MONITOR CREW HEALTH
AND SAFETY

** EQUIPMENT/EXPERIMENT NO. 1 MEDICAL

S/C AREAS MAINTENANCE

*** WASTE SOURCE NO. 1 MEDICAL

DOCUMENT NO. 1.1.3.1.1*

REFERENCE NO. 1 .. EXPERIMENTAL PROGRAM FOR EXTENDED EARTH
ORBITAL MISSIONS REVISION DATED SEPTEMBER
1968, NASA OFFICE OF MANNED SPACE FLIGHT.

***** WASTE ITEM NO. 1 TRASH HAMPER
STATE SOLID
DENSITY 0.35 LBS/CU. FT.
ATTRIBUTES PLASTIC CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE
GENERATION DATA ...
NO. OF MEN RATE(LBS/YEAR)
12 0.00
50 0.00
100 0.00

RECLAMATION ACTION .. REUSE AS IS

***** WASTE ITEM NO. 2 TRASH HAMPER BAGS
STATE SOLID
DENSITY 0.69 LBS/CU. FT.
ATTRIBUTES PLASTIC CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYETHYLENE
GENERATION DATA ...
NO. OF MEN RATE(LBS/YEAR)
12 3.00
50 10.95
100 21.90

RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

PAGE 13

S/C SUBSYSTEM DISPENSARY HCUSEKEEPING
GROUP KEY 1.1.3

** EQUIPMENT/EXPERIMENT NO. 1 MEDICAL

*** WASTE SOURCE NO. 1 MEDICAL

***** WASTE ITEM NO. 3 WIPES

STATE SOLID

DENSITY 10.37 LBS/CU. FT.

ATTRIBUTES GAUZE AND BACTERICIDE CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

24.00

50

87.60

100

87.60

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 4 AUTOCLAVE CLOTHS-WRAPPING INSTRUMENTS

STATE SOLID

DENSITY 6.07 LBS/CU. FT.

ATTRIBUTES CLCTH CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

2.00

50

7.00

100

7.00

RECLAMATION ACTION .. REUSE AS IS

***** WASTE ITEM NO. 5 AUTOCLAVE WASTE WATER

STATE VAPOR

DENSITY 62.00 LBS/CU. FT.

ATTRIBUTES HOT

ELEMENTS PRESENT ..

COMPOSITION WATER, IMPURITIES

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

50.00

50

183.00

100

183.00

RECLAMATION ACTION .. CONDENSE, STRAIN

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

PAGE 14

S/C SUBSYSTEM DISPENSARY HCUSEKEEPING
GROUP KEY 1.1.3

** EQUIPMENT/EXPERIMENT NO. 1MEDICAL

*** WASTE SOURCE NO. 1 MEDICAL

***** WASTE ITEM NO. 6 PACKAGING MATERIAL

STATE SCLID

DENSITY 0.08 LBS/CU. FT.

ATTRIBUTES PLASTIC CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYETHYLENE

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

2.00

50

7.30

100

7.30

RECLAMATION ACTION .. REUSE AS IS

11/30/70

RUN NO. ** 2 **

PAGE 15

S/C SUBSYSTEM DISPENSARY HOUSEKEEPING
GROUP KEY 1.1.3

** EQUIPMENT/EXPERIMENT NO. 2 DENTAL

S/C AREAS MAINTENANCE

*** WASTE SOURCE NO. 1 DENTAL

DOCUMENT NO. 1.1.3.2.1*

REFERENCE NO. 1 .. EXPERIMENTAL PROGRAM FOR EXTENDED EARTH
ORBITAL MISSIONS REVISION DATED SEPTEMBER
1968, NASA OFFICE OF MANNED SPACE FLIGHT
T.

***** WASTE ITEM NO. 1 TRASH HAMPER

STATE SOLID

DENSITY 0.35 LBS/CU. FT.

ATTRIBUTES PLASTIC CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYSTYRENE

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

0.00

50

0.00

100

0.00

RECLAMATION ACTION .. REUSE AS IS

***** WASTE ITEM NO. 2 TRASH HAMPER BAGS

STATE SOLID

DENSITY 0.08 LBS/CU. FT.

ATTRIBUTES PLASTIC CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYETHYLENE

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

3.60

50

10.95

100

10.95

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM DISPENSARY HOUSEKEEPING
 GROUP KEY 1.1.3

** EQUIPMENT/EXPERIMENT NO. 2 DENTAL

*** WASTE SOURCE NO. 1 DENTAL

***** WASTE ITEM NO. 3 WIPES

STATE SOLID

DENSITY 10.37 LBS/CU. FT.

ATTRIBUTES GAUZE AND BACTERICIDE CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE AND BACTERICIDE

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

12.00

50

43.80

100

43.80

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 4 AUTOCLAVE CLOTHS-WRAPPING INSTRUMENTS

STATE SOLID

DENSITY 6.07 LBS/CU. FT.

ATTRIBUTES CLOTH CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

12.00

50

36.50

100

36.50

RECLAMATION ACTION .. REUSE AS IS

***** WASTE ITEM NO. 5 PACKAGING MATERIAL

STATE SOLID

DENSITY 0.08 LBS/CU. FT.

ATTRIBUTES PLASTIC CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYETHYLENE

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

1.00

50

3.65

100

3.65

RECLAMATION ACTION .. REUSE AS IS

11/30/70

RUN NO. ** 2 **

PAGE 17

S/C SUBSYSTEM PERSONNEL PROTECTION

GROUP KEY 1.1.4

BASIC FUNCTION SUPPORT LIFE

FUNCTIONAL REQUIREMENT MAINTAIN AND MONITOR CREW HEALTH
AND SAFETY

** EQUIPMENT/EXPERIMENT NO. 1 SPACE SUITS, AND PORTABLE LIFE SU
PPORT SYSTEMS

S/C AREAS SERVICES AIRLOCKS

**** WASTE SOURCE NO. 1 SPACE SUITS AND PORTABLE LIFE SUPPORT SY
STEMS

DOCUMENT NO. 1.1.4.1.1*

REFERENCE NO. 1 .. MCDONNELL DOUGLAS ASTRONAUTICS CO. MDC G
C634, SPACE STATION PRELIMINARY DESIGN D
ATA, VOLUME 1, BOOK 3, CREW SYSTEMS (JULY 1
970) CONTRACT NAS8-25140

REFERENCE NO. 2 .. NORTH AMERICAN ROCKWELL CORP., SPACE DIV
ISION MSC-00735, SPACE STATION DESIGN SH
EETS, VOL.1, SECTION 4.6 AND 4.7, CONTR
ACT NAS9-9953

***** WASTE ITEM NO. 1 WATER
STATE LIQUID
DENSITY 62.40 LBS/CU. FT.
ATTRIBUTES VAPORIZED
ELEMENTS PRESENT ..
COMPOSITION WATER
GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

840.00

50

3360.00

100

6720.00

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 CO2
STATE GAS
DENSITY 0.00 LBS/CU. FT.
ATTRIBUTES COMBINED WITH LIQH
ELEMENTS PRESENT .. C2, C
COMPOSITION
GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

187.00

50

749.00

100

1498.00

RECLAMATION ACTION .. TPAP AND SCRUB

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

PAGE 18

S/C SUBSYSTEM PERSONNEL PROTECTION

GROUP KEY 1.1.4

** EQUIPMENT/EXPERIMENT NO. 1 SPACE SUITS AND PORTABLE LIFE SUPPORT SYSTEMS

*** WASTE SOURCE NO. 1 SPACE SUITS AND PORTABLE LIFE SUPPORT SYSTEMS

*** WASTE ITEM NO. 3 LICH

STATE SOLID

DENSITY 28.00 LBS/CU. FT.

ATTRIBUTES GRANULAR, HYDROSCOPIC, STRONG CAUSTIC

ELEMENTS PRESENT ..

COMPOSITION LICH

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

600.00

50

2400.00

100

4800.00

RECLAMATION ACTION .. N/R

*** WASTE ITEM NO. 4 POWER SUPPLY (BATTERY)

STATE SOLID

DENSITY 100.00 LBS/CU. FT.

ATTRIBUTES DENSE, CORROSIVE

ELEMENTS PRESENT ..

COMPOSITION UNKNOWN

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

670.00

50

2680.00

100

5360.00

RECLAMATION ACTION .. RECHARGE

PROVIDE CREW QUARTERS

S/C SUBSYSTEM PROVIDE FURNISHINGS

GROUP KEY 1.2.1

*** *****

BASIC FUNCTION SUPPORT LIFE

FUNCTIONAL REQUIREMENT PROVIDE CREW QUARTERS

** EQUIPMENT/EXPERIMENT NO. 1 ROOM FURNISHINGS

S/C AREAS BED ROOM

*** WASTE SOURCE NO. 1 ROOM FURNISHINGS

DOCUMENT NO. 1.2.1.1.1*

REFERENCE NO. 1 .. HYGIENE SYSTEMS ANALYSIS DEBRIS GENERATION AND FLOW PATTERNS, FHR #3864 DECEMBER 30, 1969, FH/RAD

**** * WASTE ITEM NO. 1 USED INFLATABLE PILLOW

STATE SOLID

DENSITY 40.00 LBS/CU. FT.

ATTRIBUTES PLASTIC, INERT, SHEET

ELEMENTS PRESENT ..

COMPOSITION TEFLON

GENERATION DATA ...

NO. OF MEN

RATE (LBS/YEAR)

12

16.00

50

67.00

100

133.00

RECLAMATION ACTION .. LAUNDRY, WIPE CLEAN

***** WASTE ITEM NO. 2 USED INFLATABLE MATTRESS

STATE SOLID

DENSITY 40.00 LBS/CU. FT.

ATTRIBUTES PLASTIC, INERT, SHEET

ELEMENTS PRESENT ..

COMPOSITION TEFLON

GENERATION DATA ...

NO. OF MEN

RATE (LBS/YEAR)

12

48.00

50

200.00

100

400.00

RECLAMATION ACTION .. LAUNDRY, WIPE CLEAN

11/30/70

RUN NO. ** 2 **

PAGE 20

S/C SUBSYSTEM PROVIDE FURNISHINGS
GROUP KEY 1.2.1

** EQUIPMENT/EXPERIMENT NO. 1 ROOM FURNISHINGS

*** WASTE SOURCE NO. 1 ROOM FURNISHINGS

*** *****

*** * WASTE ITEM NO. 3 WORN FURNITURE COVERS

STATE SOLID

DENSITY 20.00 LBS/CU. FT.

ATTRIBUTES PLASTIC, SHEET, INERT

ELEMENTS PRESENT ..

COMPOSITION PBT (POLY-BENZOTRIADAZOLE) OR NYLON (POLYAMIDE)

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

12.00

50

50.00

100

100.00

DECLARATION ACTION .. NONE

S/C SUBSYSTEM PROVIDE PERSONAL ARTICLES

GROUP KEY 1.2.2

BASIC FUNCTION SUPPORT LIFE

FUNCTIONAL REQUIREMENT PROVIDE CREW QUARTERS

** EQUIPMENT/EXPERIMENT NO. 1 CLOTHING

S/C AREAS BED ROOM

*** WASTE SOURCE NO. 1 CLOTHING

DOCUMENT NO. 1.2.2.1.1*

REFERENCE NO. 1 .. PRELIMINARY DEFINITION-INTERGRATED HYGIENE SYSTEM MATERIAL PROVISIONS, FHR #3871, JANUARY 29, 1970 FH/RAC

REFERENCE NO. 2 .. HYGIENE SYSTEMS ANALYSIS DEBRIS GENERATION AND FLOW PATTERNS. FHR #3864 DECEMBER 30, 1969 FH/RAC

REFERENCE NO. 3 .. SPACE STATION PHASE B DEFINITION DESIGN SHEETS BY SPACE DIVISION N.A.R. MSC-00735 SD 70-150, VOL. 1, PAGE 002

REFERENCE NO. 4 .. HANDBOOK OF GARMENT SELECTION CRITERIA FOR A SPACE STATION, BY AUSTIN C. MORRIS OF F. B. WELSON & CO., INC., HARTFORD, CONN. NASA CR 102051, N70-15022 (1969-1970)

***** WASTE ITEM NO. 1 SOILED SHIRT SHORT SLEEVE

STATE SOLID

DENSITY 17.00 LBS/CU. FT.

ATTRIBUTES TEXTILE SHEET, PATHOGENIC

ELEMENTS PRESENT .. H, C, O,

COMPOSITION CELLULOSE

GENERATION DATA ...

NO. OF MEN

RATE (LBS/YEAR)

12

428.00

50

1782.00

100

3564.00

RECLAMATION ACTION .. LAUNDER

PAGE 22

```
***** WASTE ITEM NO. 4 .... SOILED UNDERSHORTS  
STATE ..... SOLID  
DENSITY ..... 18.00 LBS/CU. FT.  
ATTRIBUTES ..... TEXTILE SHEET,PATHOGENIC  
ELEMENTS PRESENT ..  
COMPOSITION ..... CELLULOSE  
GENERATION DATA ...  
NO. OF MEN RATE(LBS/YEAR)  
12 440.00  
50 1836.00  
100 3672.00  
RECLAMATION ACTION .. LAUNDER
```

S/C SUBSYSTEM PROVIDE PERSONAL ARTICLES
GROUP KEY 1.2.2

** EQUIPMENT/EXPERIMENT NO. 1CLOTHING

*** WASTE SOURCE NO. 1 CLCTHING

***** WASTE ITEM NO. 5 SOILED UNDERSHIRTS

STATE SOLID

DENSITY 18.00 LBS/CU. FT.

ATTRIBUTES TEXTILE SHEET,PATHOGENIC

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

440.00

50

1836.00

100

3672.00

RECLAMATION ACTION .. LAUNDER

***** WASTE ITEM NO. 6 SOILED SOCKS (PAIR)

STATE SOLID

DENSITY 12.00 LBS/CU. FT.

ATTRIBUTES TEXTILE SHEET,PATHOGENIC

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

103.00

50

432.00

100

864.00

RECLAMATION ACTION .. LAUNDER

***** WASTE ITEM NO. 7 SOILED SHOES (PAIR)

STATE SOLID

DENSITY 65.00 LBS/CU. FT.

ATTRIBUTES PLASTIC, INERT, SHEET

ELEMENTS PRESENT ..

COMPOSITION FLEUREL SOAKED ODESKIN

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

7.00

50

28.00

100

56.00

RECLAMATION ACTION .. CLEAN WITH SOLVENTS

11/30/70

RUN NO. ** 2 **

PAGE 24

S/C SUBSYSTEM PROVIDE PERSONAL ARTICLES
GROUP KEY 1.2.2

** EQUIPMENT/EXPERIMENT NO. 2 BED LINENS

S/C AREAS BED ROOM

*** WASTE SOURCE NO. 1 BED LINENS

DOCUMENT NO. 1.2.2.2.1*

REFERENCE NO. 1 .. SPACE STATION PHASE B DEFINITION DESIGN
SHEETS BY SPACE DIVISION N.A.R. MSC-0073
5 SD 70-150 VOL. 1, PAGES 006.

REFERENCE NO. 2 .. HYGIENE SYSTEMS ANALYSIS DEBRIS GENERATION
AND FLOW PATTERNS, FHR 3864 DECEMBER 30, 1969, FH/RAD

REFERENCE NO. 3 .. PRELIMINARY DEFINITION-INTEGRATED HYGIENE
SYSTEM MATERIAL PROVISIONS, FHR 3871,
FEBRUARY 2, 1970, FH/RAD.

*** WASTE ITEM NO. 1 SHEETS SOILED
STATE SOLID
DENSITY 25.00 LBS/CU. FT.
ATTRIBUTES FABRIC, SHEET, ORGANIC SOIL
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ...
NO. OF MEN RATE(LBS/YEAR)
12 320.00
50 1332.00
100 2664.00
RECLAMATION ACTION .. LAUNDER

*** WASTE ITEM NO. 2 BLANKET
STATE SOLID
DENSITY 5.00 LBS/CU. FT.
ATTRIBUTES FABRIC, SHEET, ORGANIC SOIL
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ...
NO. OF MEN RATE(LBS/YEAR)
12 24.00
50 100.00
100 200.00
RECLAMATION ACTION .. DRY CLEAN OR LAUNDER

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO: ** 2 **

PAGE 25

S/C SUBSYSTEM PROVIDE PERSONAL ARTICLES
GROUP KEY 1.2.2

** EQUIPMENT/EXPERIMENT NO. 2BED LINENS

**** WASTE SOURCE NO. 1 BFD LINENS

***** WASTE ITEM NO. 3 PILLOW CASES

STATE SOLID

DENSITY 25.00 LBS/CU. FT.

ATTRIBUTES FABRIC, SHEET, ORGANIC SOIL

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

73.20

50

305.00

100

610.00

RECLAMATION ACTION .. LAUNDER

***** WASTE ITEM NO. 4 MATTRESS COVERS

STATE SOLID

DENSITY 5.00 LBS/CU. FT.

ATTRIBUTES FABRIC, SHEET

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

17.00

50

70.00

100

140.00

RECLAMATION ACTION ..

11/30/70

RUN NO. ** 2 **

PAGE 26

S/C SUBSYSTEM PROVIDE PERSONAL ARTICLES

GROUP KEY 1.2.2

** EQUIPMENT/EXPERIMENT NO. 3 LIMITED PERSONAL GROOMING FACILITY

S/C AREAS BED ROOM

**** WASTE SOURCE NO. 1 LIMITED PERSONAL GROOMING FACILITY

DOCUMENT NO. 1.2.2.3.1*

REFERENCE NO. 1 .. VOL. 1-PRELIMINARY DESIGN REPORT (SPACE STATION HYGIENE, WASTE MANAGEMENT, FOOD SYSTEMS). FHR #3900 JUNE 1, 1970 FAIRCHILD HILLER/RAD.

REFERENCE NO. 2 .. DESIGN SHEETS (HYGIENE AND FOOD MANAGEMENT). FOR MDAC. FHR #3902 JUNE 5, 1970 FH/RAD.

REFERENCE NO. 3 .. PRELIMINARY DEFINITION-INTEGRATED HYGIENE SYSTEM MATERIAL PROVISIONS. FHR #3871 JAN. 29, 1970 FH/RAD.

REFERENCE NO. 4 .. HYGIENE SYSTEMS ANALYSIS DEBRIS GENERATION AND FLOW PATTERNS. FHR #3364 DEC. 30, 1969 FH/RAD.

**** WASTE ITEM NO. 1 ABSORBENT WIPES

STATE SOLID

DENSITY 7.00 LBS/CU. FT.

ATTRIBUTES PAPER, PATHOGENIC, SHEET

ELEMENTS PRESENT .. H, C, O

COMPOSITION CELLULOSE

GENERATION DATA ...

NO. OF MEN

WASTE RATE (LBS/YEAR)

12

38.60

50

160.80

100

321.60

RECLAMATION ACTION .. CLEAN, DRY & DISINFECT

S/C SUBSYSTEM REST AND RELAXATION PROVISIONS

GROUP KEY 1.2.3

BASIC FUNCTION SUPPORT LIFE

FUNCTIONAL REQUIREMENT PROVIDE CREW QUARTERS

** EQUIPMENT/EXPERIMENT NO. 1 INDIVIDUAL CREW RECREATION

S/C AREAS RECREATION

STUDY/LIBRARY

*** WASTE SOURCE NO. 1 INDIVIDUAL CREW RECREATION

DOCUMENT NO. 1.2.3.1.1*

REFERENCE NO. 1 .. HYGIENE SYSTEMS ANALYSIS DEBRIS GENERATI
ON AND FLUX PATTERNS-FHR 3864 DECEMBER 3
0, 1969-FH/RAD

***** WASTE ITEM NO. 1 DEBRIS(PAPER)

STATE SOLID

DENSITY 20.00 LBS/CU. FT.

ATTRIBUTES PAPER, SHEET INERT

ELEMENTS PRESENT .. C-H-N

COMPOSITION

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

20.00

50

85.00

100

175.00

RECLAMATION ACTION .. REPROCESS

***** WASTE ITEM NO. 2 BOOKS(100 PERCENT READ)

STATE SOLID

DENSITY 50.00 LBS/CU. FT.

ATTRIBUTES PAPER SHEET INERT

ELEMENTS PRESENT .. C-H-N

COMPOSITION CELLULOSE

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

52.00

50

52.00

100

52.00

RECLAMATION ACTION .. REPROCESS

11/30/70

RUN NO. 2

PAGE 23

S/C SUBSYSTEM REST AND RELAXATION PROVISIONS
GROUP KEY 1.2.3

** EQUIPMENT/EXPERIMENT NO. 1INDIVIDUAL CREW RECREATION
*** WASTE SOURCE NO. 1 INDIVIDUAL CREW RECREATION

***** WASTE ITEM NO. 3 MAGNETIC TAPES CASSETTES

STATE SOLID

DENSITY 80.00 LBS/CU. FT.

ATTRIBUTES PLASTIC SHEET, INERT

ELEMENTS PRESENT .. FE

COMPOSITION MYLAR -

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

8.00

50

8.00

100

8.00

RECLAMATION ACTION .. ERASE AND RERECORD

***** WASTE ITEM NO. 4 VIEWED MICRO FILMS

STATE SOLID

DENSITY 90.00 LBS/CU. FT.

ATTRIBUTES PLASTIC SHEET, INERT

ELEMENTS PRESENT ..

COMPOSITION ACETATE -

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

5.00

50

5.00

100

5.00

RECLAMATION ACTION .. REPROCESS

PROVIDE CREW FOOD AND DRINK

S/C SUBSYSTEM FOOD STORAGE SYSTEM

GROUP KEY 1.3.1

BASIC FUNCTION SUPPORT LIFE

FUNCTIONAL REQUIREMENT PROVIDE CREW MEALS

** EQUIPMENT/EXPERIMENT NO. 1 PERISHABLE FOOD STORAGE

S/C AREAS STORAGE

KITCHEN

*** WASTE SOURCE NO. 1 PERISHABLE FOOD STORAGE - MECHANICAL

DOCUMENT NO. 1.3.1.1.1

REFERENCE NO. 1 .. FAIRCHILD HILLER STUDY - FHR 3285. FOOD
MANAGEMENT SUBSYSTEM - SPACE STATION. 2
/17/70

*** WASTE ITEM NO. 1 FREON

STATE GAS

DENSITY 120.00 LBS/CU. FT.

ATTRIBUTES INERT

ELEMENTS PRESENT ..

COMPOSITION FREON

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

10.00

50

42.00

100

84.00

RECLAMATION ACTION .. N/A

*** WASTE ITEM NO. 2 LIGHT BULBS

STATE SOLID

DENSITY 8.00 LBS/CU. FT.

ATTRIBUTES FRAGILE, SHARP, PIECES

ELEMENTS PRESENT ..

COMPOSITION GLASS, TUNGSTEN, STEEL

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

0.15

50

0.61

100

1.21

RECLAMATION ACTION .. N/A

11/30/70

RUN NO. ** 2 *

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S/C SUBSYSTEM FOOD STORAGE SYSTEM
GROUP KEY 1.3.1

** EQUIPMENT/EXPERIMENT NO. 1 PERISHABLE FOOD STORAGE
*** WASTE SOURCE NO. 1 PERISHABLE FOOD STORAGE - MECHANICAL

*** WASTE ITEM NO. 3 SPENT PARTS
STATE SOLID
DENSITY 120.00 LBS/CU. FT.
ATTRIBUTES DENSE, SMALL, METAL, PLASTIC
ELEMENTS PRESENT .. FE, CU, AL
COMPOSITION TEFLON
GENERATION DATA ...
NO. OF MEN RATE(LBS/YEAR)
12 4.00
50 8.00
100 16.00
RECLAMATION ACTION ..

*** WASTE ITEM NO. 4 WATER
STATE LIQUID
DENSITY 64.00 LBS/CU. FT.
ATTRIBUTES FROST
ELEMENTS PRESENT ..
COMPOSITION WATER
GENERATION DATA ...
NO. OF MEN RATE(LBS/YEAR)
12 41.00
50 170.00
100 340.00
RECLAMATION ACTION .. CONDENSE & RECOVER

*** WASTE ITEM NO. 5 FOOD IN PKG.
STATE SOLID
DENSITY 56.00 LBS/CU. FT.
ATTRIBUTES ORGANIC, SHEET, PLASTIC, METAL
ELEMENTS PRESENT .. ALUMINUM
COMPOSITION POLYETHYLENE
GENERATION DATA ...
NO. OF MEN RATE(LBS/YEAR)
12 7.80
50 32.60
100 65.30
RECLAMATION ACTION .. NONE

11/30/70

RUN NC. ** 2 **

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S/C SUBSYSTEM FOOD STORAGE SYSTEM
GROUP KEY 1.3.1

** EQUIPMENT/EXPERIMENT NO. 1 PERISHABLE FOOD STORAGE

*** WASTE SOURCE NO. 2 PERISHABLE FOOD STORAGE - THERMOELECTRIC

DOCUMENT NO. 1.3.1.1.2

REFERENCE NO. 1 .. FAIRCHILD HILLER STUDY - FHR 3885. FOOD
MANAGEMENT SUBSYSTEM - SPACE STATION. :
/17/70

***** WASTE ITEM NO. 1 LIGHT BULBS

STATE SOLID

DENSITY 8.00 LBS/CU. FT.

ATTRIBUTES FRAGILE, SHARP, PIECES

ELEMENTS PRESENT ..

COMPOSITION BOROSILICATE, TUNGSTEN, STEEL

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

0.15

50

0.61

100

1.21

RECLAMATION ACTION .. PULVERIZE

***** WASTE ITEM NO. 2 WATER

STATE LIQUID

DENSITY 64.00 LBS/CU. FT.

ATTRIBUTES FRCST

ELEMENTS PRESENT ..

COMPOSITION WATER

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

41.00

50

170.00

100

340.00

RECLAMATION ACTION .. CONDENSE & RECOVER

***** WASTE ITEM NO. 3 FOOD IN PKG. -

STATE SOLID

DENSITY 56.00 LBS/CU. FT.

ATTRIBUTES ORGANIC, PLASTIC, SHEET, METAL

ELEMENTS PRESENT .. ALUMINUM

COMPOSITION POLYETHYLENE,

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

7.80

50

32.60

100

65.30

RECLAMATION ACTION .. NONE

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM FOOD STORAGE SYSTEM
GROUP KEY 1.3.1

** EQUIPMENT/EXPERIMENT NO. 1 PERISHABLE FOOD STORAGE

*** WASTE SOURCE NO. 3 PERISHABLE FOOD STORAGE - SPACE RADIATOR

DOCUMENT NO. 1.3.1.1.3

REFERENCE NO. 1 .. FAIRCHILD HILLER STUDY - FHR 3885. FOOD
MANAGEMENT SUBSYSTEM - SPACE STATION.
/17/70

***** WASTE ITEM NO. 1 LIGHT BULBS
STATE SOLID
DENSITY 8.00 LBS/CU. FT.
ATTRIBUTES GLASS, FRAGILE, SHARP, PIECES
ELEMENTS PRESENT ..
COMPOSITION BOROSILICATE, TUNGSTEN, STEEL
GENERATION DATA ...
NO. OF MEN RATE(LBS/YEAR)
12 0.15
50 0.61
100 1.21

RECLAMATION ACTION .. PULVERIZE

***** WASTE ITEM NO. 2 WATER
STATE LIQUID
DENSITY 64.00 LBS/CU. FT.
ATTRIBUTES FROST
ELEMENTS PRESENT ..
COMPOSITION WATER
GENERATION DATA ...
NO. OF MEN RATE(LBS/YEAR)
12 41.00
50 170.00
100 340.00

RECLAMATION ACTION .. CONDENSE & RECOVER

***** WASTE ITEM NO. 3 FOOD IN PKG.
STATE SOLID
DENSITY 56.00 LBS/CU. FT.
ATTRIBUTES ORGANIC, PLASTIC, SHEET, METAL
ELEMENTS PRESENT .. ALUMINUM
COMPOSITION POLYETHYLENE
GENERATION DATA ...
NO. OF MEN RATE(LBS/YEAR)
12 7.80
50 32.60
100 65.30

RECLAMATION ACTION ..

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM FOOD STORAGE SYSTEM

GROUP KEY 1.3.1

** EQUIPMENT/EXPERIMENT NO. 2 STABLE FOOD STORAGE

S/C AREAS STORAGE
KITCHEN

*** WASTE SOURCE NO. 1 STABLE FOOD STORAGE

DOCUMENT NO. 1.3.1.2.1*

REFERENCE NO. 1 .. FAIRCHILD HILLER STUDY - FHR 3885. FOOD
MANAGEMENT SUBSYSTEMS - SPACE STATION.
2/17/70

***** WASTE ITEM NO. 1 FOOD IN PKG.

STATE SOLID

DENSITY 41.60 LBS/CU. FT.

ATTRIBUTES ORGANIC, PLASTIC, SHEET

ELEMENTS PRESENT ..

COMPOSITION FOOD, POLYETHYLENE

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

8.40

50

34.90

100

69.80

RECLAMATION ACTION ..

***** WASTE ITEM NO. 2 LIGHT BULBS

STATE SOLID

DENSITY 8.00 LBS/CU. FT.

ATTRIBUTES GLASS, FRAGILE, SHARP, PIECES

ELEMENTS PRESENT ..

COMPOSITION BOROSILICATES, TUNGSTEN, STEEL

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

0.15

50

0.61

100

1.21

RECLAMATION ACTION .. PULVERIZE

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM FOOD AND FOOD PREPARATION

GROUP KEY 1.3.2

BASIC FUNCTION SUPPORT LIFE

FUNCTIONAL REQUIREMENT PROVIDE CREW MEALS

** EQUIPMENT/EXPERIMENT NO. 1 FOOD RECONSTITUTION

S/C AREAS KITCHEN
SNACK BAR

*** WASTE SOURCE NO. 1 FOOD RECONSTITUTION-REHYDRATION

DOCUMENT NO. 1.3.2.1.1

REFERENCE NO. 1 .. FAIRCHILD HILLER STUDY FHR 3885, FOOD MAN-
AGEMENT SUBSYSTEM-SPACE STATION, 17 FEBRU-
ARY 1970.

*** WASTE ITEM NO. 1 FOOD IN PACKAGE .5 PERCENT

STATE SOLID

DENSITY 56.00 LBS/CU. FT.

ATTRIBUTES ORGANIC AND PLASTIC SHEET

ELEMENTS PRESENT ..

COMPOSITION FOOD, POLYETHYLENE

GENERATION DATA ...

NO. OF MEN

RATE (LBS/YEAR)

12

45.50

50

188.00

100

375.00

RECLAMATION ACTION .. NONE

*** WASTE ITEM NO. 2 WATER SPILLED AND NOT DRUNK 10 PERCENT

STATE LIQUID

DENSITY 62.00 LBS/CU. FT.

ATTRIBUTES WATER

ELEMENTS PRESENT ..

COMPOSITION WATER

GENERATION DATA ...

NO. OF MEN

RATE (LBS/YEAR)

12

1007.00

50

4200.00

100

8400.00

RECLAMATION ACTION .. RECYCLE

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM FOOD AND FOOD PREPARATION
GROUP KEY 1.3.2

** EQUIPMENT/EXPERIMENT NO. 1 FOOD RECONSTITUTION

*** WASTE SOURCE NO. 2 FOOD RECONSTITUTION-HEATING

DOCUMENT NO. 1.3.2.1.2

*** WASTE ITEM NO. 1 SPOILED FOOD IN PKG.

STATE SOLID

DENSITY 56.00 LBS/CU. FT.

ATTRIBUTES FOOD

ELEMENTS PRESENT ..

COMPOSITION ORGANIC PLASTIC

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

136.50

50

570.00

100

1140.00

RECLAMATION-ACTION .. N/R

*** WASTE ITEM NO. 2 MAGNITRON TUBE

STATE SOLID

DENSITY 100.00 LBS/CU. FT.

ATTRIBUTES GLASS ENVELOPE INTACT

ELEMENTS PRESENT .. FE,CU,NI,W

COMPOSITION BORASILICATES

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

2.10

50

4.20

100

7.00

RECLAMATION ACTION .. N/R

S/C SUBSYSTEM FOOD AND FOOD PREPARATION
 GROUP KEY 1.3.2

** EQUIPMENT/EXPERIMENT NO. 2 MEAL ASSEMBLY

S/C AREAS KITCHEN

*** WASTE SOURCE NO. 1 MEAL ASSEMBLY

DOCUMENT NO. 1.3.2.2.1*

*** * WASTE ITEM NO. 1 PACKAGING

STATE SOLID

DENSITY 100.00 LBS/CU. FT.

ATTRIBUTES CLCTH

ELEMENTS PRESENT ..

COMPOSITION COTTON

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

18.00

50

77.00

100

165.00

RECLAMATION ACTION .. REWEAVE

***** WASTE ITEM NO. 2 ATTACHED FOOD .5 PERCENT OVERALL

STATE SOLID

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES ORGANIC, SEMI-LIQUID

ELEMENTS PRESENT ..

COMPOSITION FOOD

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

14.50

50

61.00

100

122.40

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 3 WIPES(TOWEL)4/DAY/12 MAN CREW 10% WASTE

STATE SOLID

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES CLCTH

ELEMENTS PRESENT ..

COMPOSITION FOOD

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

0.00

50

0.00

100

0.00

RECLAMATION ACTION ..

11/30/70

RUN NO, ** 2 **

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S/C SUBSYSTEM FOOD AND FOOD PREPARATION
GROUP KEY 1.3.2

** EQUIPMENT/EXPERIMENT NO. 2 MEAL ASSEMBLY
*** WASTE SOURCE NO. 1 MEAL ASSEMBLY

**** WASTE ITEM NO. 4 FLEX. DRINKING DEVICE TIPS
STATE SOLID
DENSITY 20.00 LBS/CU. FT.
ATTRIBUTES FLEX.
ELEMENTS PRESENT ..
COMPOSITION HYPALON RUBBER
GENERATION DATA ...

NO. OF MEN	RATE(LBS/YEAR)
12	0.37
50	1.56
100	3.12

RECLAMATION ACTION .. WASH

**** WASTE ITEM NO. 5 SPILLED FOOD 3 PERCENT
STATE SOLID
DENSITY 56.00 LBS/CU. FT.
ATTRIBUTES ORGANIC, SEMI-LIQUID
ELEMENTS PRESENT ..
COMPOSITION FOOD
GENERATION DATA ...

NO. OF MEN	RATE(LBS/YEAR)
12	87.00
50	466.00
100	730.00

RECLAMATION ACTION .. N/R

S/C SUBSYSTEM MEAL SERVICE AND DINING

GROUP KEY 1.3.3

BASIC FUNCTION SUPPORT LIFE

FUNCTIONAL REQUIREMENT PROVIDE CREW MEALS

** EQUIPMENT/EXPERIMENT NO. 1 MEAL AND ACCESSORY TRANSPORT

S/C AREAS DINING AREA

*** WASTE SOURCE NO. 1 MEAL AND ACCESSORY TRANSPORT

DOCUMENT NO. 1.3.3.1.1*

***** WASTE ITEM NO. 1 SPILLED FOOD

STATE SOLID

DENSITY 56.00 LBS/CU. FT.

ATTRIBUTES LIQUID SATURATED, ORGANIC

ELEMENTS PRESENT ..

COMPOSITION FOOD

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

100.00

50

460.00

100

920.00

RECLAMATION ACTION .. N/R

*** WASTE ITEM NO. 2 DISINFECTANT SOL

STATE LIQUID

DENSITY 64.00 LBS/CU. FT.

ATTRIBUTES' CHEMICAL

ELEMENTS PRESENT ..

COMPOSITION BAC SOLUTION

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

52.00

50

220.00

100

440.00

RECLAMATION ACTION .. N/R

11/30/70

RUN NC. ** 2 **

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S/C SUBSYSTEM MEAL SERVICE AND DINING
GROUP KEY 1.3.3

** EQUIPMENT/EXPERIMENT NO. 1 MEAL AND ACCESSORY TRANSPORT

*** WASTE SOURCE NO. 1 MEAL AND ACCESSORY TRANSPORT

, *** **

*** ** WASTE ITEM NO. 3 PACKAGE FOR DISINFECTANT

STATE SOLID

DENSITY 57.00 LBS/CU. FT.

ATTRIBUTES PLASTIC, MOLDED CONTAINER

ELEMENTS PRESENT ..

COMPOSITION POLYETHYLENE

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

1.75

50

7.00

100

14.00

RECLAMATION ACTION .. N/R

S/C SUBSYSTEM MEAL SERVICE AND DINING
 GROUP KEY 1.3.3

** EQUIPMENT/EXPERIMENT NO. 2 DINING

S/C AREAS DINING AREA
 SNACK BAR

** WASTE SOURCE NO. 1 DINING

DOCUMENT NO. 1.3.3.2.1*

*** WASTE ITEM NO. 1 UNEATEN FOOD

STATE SCLID
 DENSITY 56.00 LBS/CU. FT.
 ATTRIBUTES ORGANIC
 ELEMENTS PRESENT ..
 COMPOSITION FOOD
 GENERATION DATA ..

NO. OF MEN	RATE(LBS/YEAR)
12	2780.00
50	11600.00
100	23200.00

RECLAMATION ACTION ..

*** WASTE ITEM NO. 2 NAPKINS (LINEN)

STATE SCLID
 DENSITY 70.00 LBS/CU. FT.
 ATTRIBUTES LINEN, SOILED, TORN
 ELEMENTS PRESENT ..
 COMPOSITION FIBRE-ACETATE
 GENERATION DATA ..

NO. OF MEN	RATE(LBS/YEAR)
12	42.00
50	175.00
100	350.00

RECLAMATION ACTION .. WASH, REWEAVE

*** WASTE ITEM NO. 3 SPILLED FOOD

STATE SOLID
 DENSITY 56.00 LBS/CU. FT.
 ATTRIBUTES ORGANIC
 ELEMENTS PRESENT ..
 COMPOSITION FOOD
 GENERATION DATA ..

NO. OF MEN	RATE(LBS/YEAR)
12	100.00
50	460.00
100	920.00

RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM HOUSEKEEPING

GROUP KEY 1.3.4

BASIC FUNCTION SUPPORT LIFE

FUNCTIONAL REQUIREMENT PROVIDE CREW MEALS

** EQUIPMENT/EXPERIMENT NO. 1 DEBRIS COLLECTION

S/C AREAS KITCHEN

DINING AREA

SNACK BAR

*** WASTE SOURCE NO. 1 DEBRIS CONTROL-MECHANICAL

DOCUMENT NO. 1.3.4.1.1

***** WASTE ITEM NO. 1 FILTER UNIT,CLOGGED

STATE SOLID

DENSITY 5.00 LBS/CU. FT.

ATTRIBUTES ORGANIC DEBRIS, SHARP

ELEMENTS PRESENT .. ALUMIN.

COMPOSITION TEFLON

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

2.60

50

10.80

100

21.60

RECLAMATION ACTION .. REVERSE FLUSH

***** WASTE ITEM NO. 2 DEBRIS PKG.FILLED WITH DEBRIS

STATE SOLID

DENSITY 50.00 LBS/CU. FT.

ATTRIBUTES FLEX CONTAINER FILLED

ELEMENTS PRESENT ..

COMPOSITION POLYETHYLENE

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

10.90

50

43.70

100

87.40

RECLAMATION ACTION ..

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM HOUSEKEEPING
GROUP KEY 1.3.4

*- EQUIPMENT/EXPERIMENT NO. 1DEBRIS COLLECTION
*** WASTE SOURCE NO. 1 DEBRIS CONTROL-MECHANICAL

***** WASTE ITEM NO. 3 PACKAGE TIE,REUSABLE
STATE SOLID
DENSITY 26.00 LBS/CU. FT.
ATTRIBUTES PLASTIC RIBBON
ELEMENTS PRESENT ..
COMPOSITION TEFLON
GENERATION DATA ...
NO. OF MEN RATE(LBS/YEAR)
12 2.55
50 9.50
100 19.00
RECLAMATION ACTION .. REMOVE FROM DEBRIS PKE

***** WASTE ITEM NO. 4 SCRAPER,WORN
STATE SOLID
DENSITY 69.00 LBS/CU. FT.
ATTRIBUTES PLASTIC
ELEMENTS PRESENT ..
COMPOSITION HYPALON RUBBER
GENERATION DATA ...
NO. OF MEN RATE(LBS/YEAR)
12 0.40
50 0.80
100 1.60
RECLAMATION ACTION ..

***** WASTE ITEM NO. 5 COLLECTED FOOD WASTE
STATE SOLID
DENSITY 56.00 LBS/CU. FT.
ATTRIBUTES ORGANIC
ELEMENTS PRESENT ..
COMPOSITION FOOD
GENERATION DATA ...
NO. OF MEN RATE(LBS/YEAR)
12 100.00
50 460.00
100 920.00
RECLAMATION ACTION ..

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM HOUSEKEEPING
GROUP KEY 13.4

** EQUIPMENT/EXPERIMENT NO. 1 DERRIS COLLECTION

*** WASTE SOURCE NO. 1 DEBRIS CONTROL-MECHANICAL

***** WASTE ITEM NO. 6 VACUUM CLEANER TIPS, WORN

STATE SOLID

DENSITY 69.00 LBS/CU. FT.

ATTRIBUTES PLASTIC

ELEMENTS PRESENT ..

COMPOSITION RUBBER

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

0.80

50

1.60

100

3.20

RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM HOUSEKEEPING
GROUP KEY 1.3.4

* EQUIPMENT/EXPERIMENT NO. 1 DEBRIS COLLECTION

*** WASTE SOURCE NO. 2 DEBRIS CONTROL-MANUAL

DOCUMENT NO. 1.3.4.1.2

*** * WASTE ITEM NO. 1 WIPES

STATE SOLID

DENSITY 55.00 LBS/CU. FT.

ATTRIBUTES PAPER, WET, SOILED

ELEMENTS PRESENT ..

COMPOSITION ORGANIC

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

51.20

50

235.00

100

412.00

RECLAMATION ACTION .. N/R

***** * WASTE ITEM NO. 2 BAGS OF WASTED FOOD

STATE SOLID

DENSITY 50.00 LBS/CU. FT.

ATTRIBUTES FLEXIBLE FILLED

ELEMENTS PRESENT ..

COMPOSITION POLYETHYLENE FOOD WASTES

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

3165.00

50

13251.00

100

26500.00

RECLAMATION ACTION .. N/R

*** * WASTE ITEM NO. 3 GLOVES

STATE SOLID

DENSITY 26.00 LBS/CU. FT.

ATTRIBUTES FLEXIBLE, SHEET

ELEMENTS PRESENT ..

COMPOSITION POLYETHYLENE

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

11.00

50

44.00

100

88.00

RECLAMATION ACTION .. WASH

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM HOUSEKEEPING
GROUP KEY 1.3.4

** EQUIPMENT/EXPERIMENT NO. 1DEBRIS COLLECTION

*** WASTE SOURCE NO. 2 DEBRIS CONTROL-MANUAL

***** WASTE ITEM NO. 4 SCRAPER

STATE SOLID

DENSITY 69.00 LBS/CU. FT.

ATTRIBUTES PLASTIC, ROD

ELEMENTS PRESENT ..

COMPOSITION RUBBER HYPALON

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

0.40

50

0.80

100

1.60

RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 5 NOZZLE, VACUUM PICKUP

STATE SOLID

DENSITY 69.00 LBS/CU. FT.

ATTRIBUTES PLASTIC TUBULAR

ELEMENTS PRESENT ..

COMPOSITION RUBBER HYPALON

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

0.80

50

1.60

100

3.20

RECLAMATION ACTION .. WASH

S/C SUBSYSTEM HOUSEKEEPING

GROUP KEY 1.3.4

** EQUIPMENT/EXPERIMENT NO. 2 UTENSIL CLEANSING

S/C AREAS KITCHEN

*** WASTE SOURCE NO. 1 UTENSIL CLEANSING

DOCUMENT NO. 1.3.4.2.1*

*** WASTE ITEM NO. 1 FOOD DEBRIS

STATE SOLID

DENSITY 56.00 LBS/CU. FT.

ATTRIBUTES WATER SATURATED

ELEMENTS PRESENT ..

COMPOSITION ORGANIC

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

278.00

50

1160.00

100

2320.00

RECLAMATION ACTION .. N/P

*** WASTE ITEM NO. 2 DETERGENT

STATE LIQUID

DENSITY 62.00 LBS/CU. FT.

ATTRIBUTES IN SOLUTION

ELEMENTS PRESENT ..

COMPOSITION SULFONATES

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

40.50

50

17000.00

100

162.00

RECLAMATION ACTION .. FILTER, BOIL

*** WASTE ITEM NO. 3 WATER

STATE LIQUID

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES SATURATED FOOD AND DETERGENT

ELEMENTS PRESENT ..

COMPOSITION WATER

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

8520.00

50

0.00

100

34000.00

RECLAMATION ACTION ..

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM HOUSEKEEPING

GROUP KEY 1.3.4

** EQUIPMENT/EXPERIMENT NO. 3 WASTE STOWAGE

S/C AREAS KITCHEN
DINING AREA
SNACK BAR

*** WASTE SOURCE NO. 1 WASTE STOWAGE

DOCUMENT NO. 1.3.4.3.1*

***! WASTE ITEM NO. 1 FILLED WASTE LINERS

STATE SOLID

DENSITY 50.00 LBS/CU. FT.

ATTRIBUTES PLASTIC SHEET, ORGANIC

ELEMENTS PRESENT ..

COMPOSITION TEFLON & FOOD WASTES

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

8.00

50

32.50

100

65.00

RECLAMATION ACTION .. EMPTY, WASH

** MANNED SPACECRAFT WASTE GENERATION DATA **

** MANNED SPACECRAFT WASTE GENERATION DATA **

PROVIDE FOR CREW HYGIENE

S/C SUBSYSTEM HUMAN WASTE MANAGEMENT
 GROUP KEY 1.4.1

BASIC FUNCTION SUPPORT LIFE
 FUNCTIONAL REQUIREMENT PROVIDE FOR CREW HYGIENE

** EQUIPMENT/EXPERIMENT NO. 1 FECAL AND VOMITUS WASTE MANAGE
 NT

S/C AREAS BATHROOM
 DISPENSARY

*** WASTE SOURCE NO. 1 INTEGRATED VACUUM DRYING

DOCUMENT NO. 1.4.1.1.1

*** WASTE ITEM NO. 1 FILTERS (ODOR CONTROL)

STATE SOLID
 DENSITY 85.00 LBS/CU. FT.
 ATTRIBUTES METALIC, GRANULAR, PATHOGENIC
 ELEMENTS PRESENT ..
 COMPOSITION ACTIVATED CHARCOAL
 GENERATION DATA ...

NO. OF MEN	RATE(LBS/YEAR)
12	51.90
50	216.30
100	432.50

RECLAMATION ACTION .. PURIFY CHARCOAL

***** WASTE ITEM NO. 2 FILTERS (BACTERIA CONTROL)

STATE SOLID
 DENSITY 5.00 LBS/CU. FT.
 ATTRIBUTES TEFLON, SHEET, PATHOGENIC
 ELEMENTS PRESENT ..
 COMPOSITION TEFLON
 GENERATION DATA ...

NO. OF MEN	RATE(LBS/YEAR)
12	2.60
50	10.80
100	21.60

RECLAMATION ACTION .. PURIFY, CLEAN

S/C SUBSYSTEM HUMAN WASTE MANAGEMENT
GROUP KEY 1.4.1

EQUIPMENT/EXPERIMENT NO. 1FECAL AND VOMITUS WASTE MANAGEME
NT

* * * WASTE SOURCE NO. 1 INTEGRATED VACUUM DRYING

***-r WASTE ITEM NO. 3 WASTE CONTAINER (FILLED)

STATE SOLID

DENSITY 64.00 LBS/CU. FT.

ATTRIBUTES PLASTIC, SHEET, PATHOGENIC, ORGANIC, BULK, SEMI-LIQUID, PAPER

ELEMENTS PRESENT ..

COMPOSITION TEFLON, CELLULOSE, BACTERIA, PROTEIN, H2
O-HCL

GENERATION DATA . . .

NO. OF MEN

RATE(LBS/YEAR)

12

940.00

50

3915.00

100

7795.00

RECLAMATION ACTION .. N/R

***WASTE ITEM NO. 4 VAPORIZED PRODUCTS

STATE GAS

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES CCPRCSIVE

ELEMENTS PRESENT . . . N

COMPOSITION METHANE, AMMONIA, WATER

GENERATION DATA . . .

VO. OF TEN

RATE(LBS/YEAR)

12

1022.00

50

4258.00

100

8550.00

RECLAMATION ACTION .. N/R

S/C SUBSYSTEM HUMAN WASTE MANAGEMENT
 GROUP KEY 1.4.1

** EQUIPMENT/EXPERIMENT NO. 1 FECAL AND VOMITUS WASTE MANAGE-
 NT

**** WASTE SOURCE NO. 2 AUTOMATED BAG/VACUUM DRYING

DOCUMENT NO. 1.4.1.1.2

**** ** WASTE ITEM NO. 1 FILTERS (ODOR CONTROL)
 STATE SOLID
 DENSITY 85.00 LBS/CU. FT.
 ATTRIBUTES METALIC, GRANULAR, PATHOGENIC
 ELEMENTS PRESENT ..
 COMPOSITION ACTIVATED CHARCOAL
 GENERATION DATA ...

NO. OF MEN	RATE(LBS/YEAR)
12	51.90
50	216.30
100	432.50

RECLAMATION ACTION .. PURIFY CHARCOAL

**** ** WASTE ITEM NO. 2 WASTE CONTAINER (FILLED)
 STATE SOLID
 DENSITY 64.00 LBS/CU. FT.
 ATTRIBUTES PLASTIC, SHEET, PATHOGENIC, ORGANIC, RUL
 K, SEMI-LIQUID, PAPER
 ELEMENTS PRESENT ..
 COMPOSITION TEFLON, CELLULOSE, BACTERIA, PROTEIN, HC
 L-H₂O, FOOD

GENERATION DATA ...	NO. OF MEN	RATE(LBS/YEAR)
	12	1387.00
	50	5742.00
	100	11450.00

RECLAMATION ACTION .. N/R

**** ** WASTE ITEM NO. 3 FILTERS (BACTERIAL CONTROL)
 STATE SOLID
 DENSITY 5.00 LBS/CU. FT.
 ATTRIBUTES TEFLON, SHEET, PATHOGENIC
 ELEMENTS PRESENT ..
 COMPOSITION TEFLON
 GENERATION DATA ...

NO. OF MEN	RATE(LBS/YEAR)
12	2.60
50	10.80
100	21.60

RECLAMATION ACTION .. PURIFY, CLEAN

S/C SUBSYSTEM HUMAN WASTE MANAGEMENT
 GROUP KEY 1.4.1

* EQUIPMENT/EXPERIMENT NO. 1 FECAL AND VOMITUS WASTE MANAGEMENT

*** WASTE SOURCE NO. 3 WET COLLECTION

DOCUMENT NO. 1.4.1.1.3

*** * WASTE ITEM NO. 1 FILTERS (ODOR CONTROL)

STATE SOLID

DENSITY 85.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION ACTIVATED CHARCOAL

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

51.90

50

216.30

100

432.60

RECLAMATION ACTION .. PURIFY FILTER ELEMENT

***** WASTE ITEM NO. 2 FILTERS (BACTERIAL CONTROL)

STATE SOLID

DENSITY 5.00 LBS/CU. FT.

ATTRIBUTES TEFLON, SHEET, PATHOGENIC

ELEMENTS PRESENT ..

COMPOSITION TEFLON

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

2.60

50

10.80

100

21.60

RECLAMATION ACTION .. PURIFY, CLEAN

*** WASTE ITEM NO. 3 WASTE CONTAINER (FILLED)

STATE SOLID

DENSITY 64.00 LBS/CU. FT.

ATTRIBUTES PLASTIC, SHEET, PATHOGENIC, ORGANIC, BULK, SEMI-LIQUID, PAPER

ELEMENTS PRESENT ..

COMPOSITION TEFLON, CELLULOSE, BACTERIA, PROTEIN, HCL-H2O

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

2000.00

50

8333.00

100

16666.00

RECLAMATION ACTION ..

11/30/70

RUN NO. ** 2 *

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S/C SUBSYSTEM HUMAN WASTE MANAGEMENT
GROUP KEY 1.4.1

** EQUIPMENT/EXPERIMENT NO. 1 FECAL AND VOMITUS WASTE MANAGEMENT

*** WASTE SOURCE NO. 3 WET COLLECTION

***** WASTE ITEM NO. 4 FILTERS, FECAL AND VOMITUS COLLECTOR

STATE SOLID

DENSITY 5.00 LBS/CU. FT.

ATTRIBUTES SHEET, BULK, PATHOGENIC

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

240.00

50

1000.00

100

2000.00

RECLAMATION ACTION .. PURIFY, CLEAN

S/C SUBSYSTEM HUMAN WASTE MANAGEMENT
 GROUP KEY 1.4.1

** EQUIPMENT/EXPERIMENT NO. 2 URINE COLLECTION

S/C AREAS BATHROOM
 DISPENSARY

*** WASTE SOURCE NO. 1 URINE COLLECTION

DOCUMENT NO. 1.4.1.2.1*

***** WASTE ITEM NO. 1 FILTERS

STATE SCLID
 DENSITY 95.00 LBS/CU. FT.
 ATTRIBUTES METALIC, GRANULAR, PATHOGENIC
 ELEMENTS PRESENT ..
 COMPOSITION ACTIVATED CHARCOAL
 GENERATION DATA ...

NO. OF MEN	RATE(LBS/YEAR)
12	25.90
50	108.20
100	216.40

RECLAMATION ACTION .. PURIFY FILTER ELEMENT

S/C SUBSYSTEM FULL BODY WASH

GROUP KEY 1.4.2

BASIC FUNCTION SUPPORT LIFE

FUNCTIONAL REQUIREMENT PROVIDE FOR CREW HYGIENE

** EQUIPMENT/EXPERIMENT NO. 1 BODY WASH

S/C AREAS BATHROOM

*** WASTE SOURCE NO. 1 SHOWER

DOCUMENT NO. 1.4.2.1.1

REFERENCE NO. 1 .. VOL.1 PRELIMINARY DESIGN REPORT (SPACE STATION HYGIENE, WASTE MANAGEMENT, AND FOOD SUBSYSTEMS). FHR #3900, JUNE 1, 1970 FAIRCHILD HILLER/RAD

REFERENCE NO. 2 .. DESIGN SHEETS (HYGIENE AND FOOD MANAGEMENT) FOR MDAC. FHR #3902 JUNE 5, 1970, FAIRCHILD HILLER/RAD

REFERENCE NO. 3 .. PRELIMINARY DEFINITION-INTEGRATED HYGIENE SYSTEM MATERIALS PROVISIONS. FHR #3871, JANUARY 29, 1970, FAIRCHILD HILLER/RAD

REFERENCE NO. 4 .. HYGIENE SYSTEMS ANALYSIS DEBRIS GENERATION AND FLOW PATTERNS. FHR #3864 DECEMBER 30, 1969, FAIRCHILD HILLER/RAD

*** WASTE ITEM NO. 1 CONTAMINATED WASH WATER

STATE LIQUID

DENSITY 62.40 LBS/CU. FT.

ATTRIBUTES WATER, ORGANIC BODY SCALDS

ELEMENTS PRESENT ..

COMPOSITION WATER

GENERATION DATA ...

NO. OF MEN

RATE (LBS/YEAR)

12

37440.00

50

156000.00

100

312000.00

RECLAMATION ACTION .. PURIFICATION

11/30/70

RUN NO. ** 2 **

PAGE 57

S/C SUBSYSTEM FULL BODY WASH
GROUP KEY 1.4.2

** EQUIPMENT/EXPERIMENT NO. 1 BODY WASH

**** WASTE SOURCE NO. 2 IMMERSION BATH

DOCUMENT NO. 1.4.2.1.2

REFERENCE NO. 1 .. VOL. 1 PRELIMINARY DESIGN REPORT (SPACE S
TATION HYGIENE, WASTE MANAGEMENT, AND FOOD
SUBSYSTEMS). FHR #3900 JUNE 1, 1970 FAIR
CHILD HILLER/RAD.

REFERENCE NO. 2 .. DESIGN SHEETS (HYGIENE AND FOOD MANAGEMEN
T) FOR MDAC. FHR #3902 JUNE 5, 1970. FH/R
AD.

REFERENCE NO. 3 .. PRELIMINARY DEFINITION-INTEGRATED HYGIEN
E SYSTEM MATERIAL PROVISIONS. FHR #3871.
JAN. 29, 1970, FH/RAD

**** ** WASTE ITEM NO. 1 DIRTY WASH WATER

STATE LIQUID

DENSITY 62.40 LBS/CU. FT.

ATTRIBUTES WATER, ORGANIC BODY SOIL

ELEMENTS PRESENT ..

COMPOSITION WATER

GENERATION DATA ...

NO. OF MEN

RATE (LBS/YEAR)

12

18720.00

50

78000.00

100

156000.00

RECLAMATION ACTION .. REMOVE CONTAMINANTS

**** ** WASTE ITEM NO. 2 EXHAUSTED FILTERS AND TRAPS

STATE SOLID

DENSITY 20.00 LBS/CU. FT.

ATTRIBUTES PLASTIC, SCREEN, MICRO ORGANISMS

ELEMENTS PRESENT ..

COMPOSITION GLASS/TEFLON

GENERATION DATA ...

NO. OF MEN

RATE (LBS/YEAR)

12

156.00

50

650.00

100

1300.00

RECLAMATION ACTION .. REMOVE CONTAMINANTS

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

PAGE 58

S/C SUBSYSTEM FULL BODY WASH
GROUP KEY 1.4.2

** EQUIPMENT/EXPERIMENT NO. 1 BODY WASH

*** WASTE SOURCE NO. 2 IMPERSON BATH

*** WASTE ITEM NO. 3 USED TOWELS

STATE SOLID

DENSITY 8.00 LBS/CU. FT.

ATTRIBUTES FABRIC, DAMP

ELEMENTS PRESENT .. C-H-N

COMPOSITION CELLULOSE

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

821.00

50

3422.00

100

6843.00

RECLAMATION ACTION .. LAUNDER

*** WASTE ITEM NO. 4 USED SPONGES

STATE SOLID

DENSITY 1.20 LBS/CU. FT.

ATTRIBUTES PLASTIC INERT PATHOGENIC

ELEMENTS PRESENT ..

COMPOSITION POLYURETHANE

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

150.00

50

627.00

100

1254.00

RECLAMATION ACTION .. LAUNDER

*** WASTE ITEM NO. 5 SPENT IMMERSION BATH SUIT

STATE SOLID

DENSITY 40.00 LBS/CU. FT.

ATTRIBUTES SHEET PLASTIC

ELEMENTS PRESENT ..

COMPOSITION POLYESTER/GLASS

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

396.00

50

1650.00

100

3300.00

RECLAMATION ACTION .. NONE

11/30/70

RUN NO. ** 2 **

PAGE 59

S/C SUBSYSTEM FULL BODY WASH
GROUP KEY 1.4.2

** EQUIPMENT/EXPERIMENT NO. 1 BODY WASH

*** WASTE SOURCE NO. 3 AUTOMATED SPONGE BATH

DOCUMENT NO. 1.4.2.1.3

REFERENCE NO. 1 .. VOL.1 PRELIMINARY DESIGN REPORT(SPACE ST
ATION HYGIENE, WASTE MANAGEMENT, AND FOOD
SUBSYSTEMS), FHR #3900, JUNE 1 1970, FH/RA
D.

REFERENCE NO. 2 .. DESIGN SHEETS(HYGIENE AND FOOD MANAGEMEN
T) FOR MDAC, FHR #3902, JUNE 5, 1970, FH/R
AD.

REFERENCE NO. 3 .. PRELIMINARY DEFINITION-INTEGRATED HYGIEN
E SYSTEM MATERIAL PROVISIONS, FHR #3871,
JANUARY 29, 1970, FH/RAD

REFERENCE NO. 4 .. HYGIENE SYSTEMS ANALYSIS DEBRIS GENERATI
ON AND FLOW PATTERNS, FHR #3864, DECEMBER
30, 1969, FH/RAD.

***** WASTE ITEM NO. 1 USED WASH WATER

STATE LIQUID

DENSITY 62.40 LBS/CU. FT.

ATTRIBUTES WATER, ORGANIC BODY SCIL

ELEMENTS PRESENT ..

COMPOSITION WATER

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

2190.00

50

9125.00

100

18250.00

RECLAMATION ACTION .. DECONTAMINATE

***** WASTE ITEM NO. 2 CLOGGED PHASE SEPARATORS

STATE SOLID

DENSITY 20.00 LBS/CU. FT.

ATTRIBUTES PLASTIC SCREEN, MICRO-ORGANISMS

ELEMENTS PRESENT ..

COMPOSITION GLASS/TEFLON

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

57.60

50

240.00

100

480.00

RECLAMATION ACTION .. DECONTAMINATE

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

PAGE 60

S/C SUBSYSTEM FULL BODY WASH
GROUP KEY 1.4.2

** EQUIPMENT/EXPERIMENT NO. 1 BODY WASH

*** WASTE SOURCE NO. 3 AUTOMATED SPONGE BATH

***** WASTE ITEM NO. 3 USED TOWELS

STATE SOLID

DENSITY 8.00 LBS/CU. FT.

ATTRIBUTES TEXTILE, DAMP

ELEMENTS PRESENT .. C-F-N

COMPOSITION CELLULOSE

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

1200.00

50

5000.00

100

1000.00

RECLAMATION ACTION .. LAUNDER

***** WASTE ITEM NO. 4 USED SPONGE HEADS

STATE SOLID

DENSITY 1.20 LBS/CU. FT.

ATTRIBUTES PLASTIC, PATHOGENIC

ELEMENTS PRESENT ..

COMPOSITION POLYURETHANE

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

88.00

50

365.00

100

730.00

RECLAMATION ACTION .. DECONTAMINATE

***** WASTE ITEM NO. 5 DETERGENT

STATE LIQUID

DENSITY 75.00 LBS/CU. FT.

ATTRIBUTES DETERGENT GERMICIDE

ELEMENTS PRESENT ..

COMPOSITION AMINE + QUARTERNARY

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

10.00

50

40.00

100

80.00

RECLAMATION ACTION .. NONE

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

PAGE 61

S/C SUBSYSTEM PARTIAL BODY WASH AND PERSONAL GROOMING
GROUP KEY 1.4.3

BASIC FUNCTION SUPPORT LIFE
FUNCTIONAL REQUIREMENT PROVIDE FOR CREW HYGIENE

** EQUIPMENT/EXPERIMENT NO. 1 HYGIENE CENTER

S/C AREAS BATHROOM

*** WASTE SOURCE NO. 1 HYGIENE CENTER

DOCUMENT NO. 1.4.3.1.1*

REFERENCE NO. 1 .. VOLUME 1 PRELIMINARY DESIGN REPORT (SPACE STATION - HYGIENE, WASTE MANAGEMENT, AND FOOD SUBSYSTEMS). FHR #3900, JUNE 1, 1970, FAIRCHILD HILLER/RAD

REFERENCE NO. 2 .. DESIGN SHEETS (HYGIENE AND FOOD MANAGEMENT) FOR MDAS, FHR #3902, JUNE 5, 1970, FAIRCHILD HILLER/RAD

REFERENCE NO. 3 .. PRELIMINARY DEFINITION - INTEGRATED HYGIENE SYSTEM MATERIAL PROVISIONS, FHR #3871, FEBRUARY 2, 1970, FAIRCHILD HILLER/RAD

REFERENCE NO. 4 .. HYGIENE SYSTEMS ANALYSIS DEBRIS GENERATION AND FLOW PATTERNS, FHR #3864, DECEMBER 30, 1969, FAIRCHILD HILLER/RAD

*** WASTE ITEM NO. 1 DIRTY WATER

STATE LIQUID

DENSITY 62.40 LBS/CU. FT.

ATTRIBUTES WATER, SOAP, ORGANICS

ELEMENTS PRESENT ..

COMPOSITION WATER

GENERATION DATA ...

NO. OF MEN

RATE (LBS/YEAR)

12

5615.00

50

23370.00

100

46740.00

RECLAMATION ACTION .. DECONTAMINATE

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM PARTIAL BODY WASH AND PERSONAL GROOMING
 GROUP KEY 1.4.3

** EQUIPMENT/EXPERIMENT NO. 1HYGIENE CENTER

*** WASTE SOURCE NO. 1 HYGIENE CENTER

***** (*****)

***** WASTE ITEM NO. 2 EMPTY TOOTH PASTE TUBES

STATE SOLID

DENSITY 190.00 LBS/CU. FT.

ATTRIBUTES METAL, PLASTIC, TUBE, SOAP RESIDUES

ELEMENTS PRESENT .. ALUMINUM FOIL

COMPOSITION NYLON TOP

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

8.00

50

36.00

100

72.00

RECLAMATION ACTION .. REFILL

***** WASTE ITEM NO. 3 WORN TOOTH BRUSHES

STATE SOLID

DENSITY 100.00 LBS/CU. FT.

ATTRIBUTES PLASTIC, ROD, INERT

ELEMENTS PRESENT ..

COMPOSITION NYLON

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

3.20

50

14.30

100

28.60

RECLAMATION ACTION .. REPLACE WORN BRISTLES

***** WASTE ITEM NO. 4 RAZOR BLADES

STATE SOLID

DENSITY 400.00 LBS/CU. FT.

ATTRIBUTES METAL, SHEET, INERT, SHARP

ELEMENTS PRESENT ..

COMPOSITION STEEL

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

1.93

50

8.70

100

17.40

RECLAMATION ACTION .. RESHARPEN

11/30/70

RUN NO. ** 2 **

PAGE 63

S/C SUBSYSTEM PARTIAL BODY WASH AND PERSONAL GROOMING
GROUP KEY 1.4.3

** EQUIPMENT/EXPERIMENT NO. 1HYGIENE CENTER

*** WASTE SOURCE NO. 1 HYGIENE CENTER

***** WASTE ITEM NO. 5 ODCR CONTROL CARTRIDGE

STATE SOLID

DENSITY 50.00 LBS/CU. FT.

ATTRIBUTES CARBON, GRANULAR, ORGANIC, CONTAMINANTS

ELEMENTS PRESENT ..

COMPOSITION ACTIVATED CHARCOAL

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

32.00

50

134.00

100

268.00

RECLAMATION ACTION .. REACTIVATE

***** WASTE ITEM NO. 6 FILTER SCREEN

STATE SOLID

DENSITY 20.00 LBS/CU. FT.

ATTRIBUTES PLASTIC, ORGANIC, CONTAMINANTS

ELEMENTS PRESENT ..

COMPOSITION GLASS, TEFLON

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

72.00

50

300.00

100

600.00

RECLAMATION ACTION .. REVERSE FLUSH

***** WASTE ITEM NO. 7 FAILED SINK PART

STATE SOLID

DENSITY 100.00 LBS/CU. FT.

ATTRIBUTES METAL, INERT

ELEMENTS PRESENT ..

COMPOSITION STAINLESS STEEL

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

60.00

50

280.00

100

500.00

RECLAMATION ACTION .. REPLACE WORN SEALS

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM PARTIAL BODY WASH AND PERSONAL GROOMING
 GROUP KEY 1.4.3

** EQUIPMENT/EXPERIMENT NO. 1 HYGIENE CENTER

*** WASTE SOURCE NO. 1 HYGIENE CENTER

*** WASTE ITEM NO. 8 SOILED TOWELS

STATE SOLID

DENSITY 8.00 LBS/CU. FT.

ATTRIBUTES FABRIC, LIGHT BODY SOIL

ELEMENTS PRESENT .. C, H2, N2

COMPOSITION CELLULOSE

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

1185.00

50

5340.00

100

10680.00

RECLAMATION ACTION .. LAUNDER

***** WASTE ITEM NO. 9 WIPES, PACKAGING

STATE SOLID

DENSITY 65.00 LBS/CU. FT.

ATTRIBUTES METAL, FOIL

ELEMENTS PRESENT .. ALUMINUM

COMPOSITION

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

115.00

50

455.00

100

910.00

RECLAMATION ACTION .. NONE

***** WASTE ITEM NO. 10 WIPES, SOILED TISSUES

STATE SOLID

DENSITY 25.00 LBS/CU. FT.

ATTRIBUTES PAPER, LIQUIDS, BODY SOIL

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE, PROPYLENE GLYCOL

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

345.00

50

1365.00

100

2730.00

RECLAMATION ACTION .. NONE

- S/C SUBSYSTEM REVITALIZATION OF TEXTILES
GROUP KEY 1.4.4

BASIC FUNCTION SUPPORT LIFE
FUNCTIONAL REQUIREMENT PROVIDE FCP CREW HYGIENE

** EQUIPMENT/EXPERIMENT NO. 1 LAUNDRY

S/C AREAS LAUNDRY

*** WASTE SOURCE NO. 1 LAUNDRY

DOCUMENT NO. 1.4.4.1.1*

REFERENCE NO. 1 .. VOL. 1 PRELIMINARY DESIGN REPORT (SPACE S
TATION HYGIENE, WASTE MANAGEMENT, AND FOOD
SUBSYSTEMS) FHR #3900 JUNE 1, 1970 FH/RA
D

REFERENCE NO. 2 .. SURFACE ACTIVE AGENTS AND DETERGENTS AM.
SCHWARTZ, J.W. PERRY, J. BERCH. VOL. 2, INTE
RSCIENCE PUBLISHERS, INC., N.Y. 2ND PRINTI
NG, MAY 1966

REFERENCE NO. 3 .. HANDBOOK OF GARMENT SELECTION CRITERIA F
OR A SPACE STATION. NASA CR 102051, BY B
O. WELSON & CO., INC. HARTFORD CONNECTICUT
(1969)

REFERENCE NO. 4 .. PRELIMINARY DEFINITION-INTEGRATED HYGIEN
E SYSTEM MATERIAL PROVISIONS, FHR #3871
FEB. 2, 1970 FH/RAD

REFERENCE NO. 5 .. HYGIENE SYSTEMS ANALYSIS OF BRIS GENERATI
ON AND FLOW PATTERNS, FHR #3864 DEC. 30, 1
969 FH/RAD

*** WASTE ITEM NO. 1 WASH WATER

STATE LIQUID

DENSITY 62.40 LBS/CU. FT.

ATTRIBUTES WATER, ORGANIC SOIL

ELEMENTS PRESENT ..

COMPOSITION WATER

GENERATION DATA ...

NO. OF MEN

RATE (LBS/YEAR)

12

143000.00

50

600000.00

100

200000.00

RECLAMATION ACTION .. DECONTAMINATE

11/30/70

RUN NO: ** 2 **

PAGE 66

S/C SUBSYSTEM REVITALIZATION OF TEXTILES
GROUP KEY 1.4.4

** EQUIPMENT/EXPERIMENT NO. 1 LAUNDRY

*** WASTE SOURCE NO. 1 LAUNDRY

***** WASTE ITEM NO. 2 SCAP PACKAGING

STATE SOLID

DENSITY 30.00 LBS/CU. FT.

ATTRIBUTES ORGANIC BULKY, INERT

ELEMENTS PRESENT ..

COMPOSITION POLYETHYLENE

GENERATION DATA ...

NO. OF MEN

RATE (LBS/YEAR)

12

3.50

50

15.00

100

30.00

RECLAMATION ACTION .. REPROCESS

***** WASTE ITEM NO. 3 FILTER SCREEN/LINT

STATE SOLID

DENSITY 20.00 LBS/CU. FT.

ATTRIBUTES PLASTIC SCREEN PLUS TEXTILE LINT

ELEMENTS PRESENT ..

COMPOSITION GLASS, TEFLON, CELLULOSE

GENERATION DATA ...

NO. OF MEN

RATE (LBS/YEAR)

12

10.00

50

45.00

100

90.00

-RECLAMATION ACTION .. REVERSE FLUSH

***** WASTE ITEM NO. 4 FILTER SCREEN/SEPARATOR

STATE SOLID

DENSITY 20.00 LBS/CU. FT.

ATTRIBUTES PLASTIC SCREEN

ELEMENTS PRESENT ..

COMPOSITION GLASS, TEFLON

GENERATION DATA ...

NO. OF MEN

RATE (LBS/YEAR)

12

2.40

50

10.00

100

20.00

RECLAMATION ACTION .. REVERSE FLUSH

11/30/70

RUN NO. ** 2 **

PAGE 67

S/C SUBSYSTEM REVITALIZATION OF TEXTILES
GROUP KEY 1.4.4

** EQUIPMENT/EXPERIMENT NO. 1 LAUNDRY

*** WASTE SOURCE NO. 1 LAUNDRY

***** WASTE ITEM NO. 5 FAILED MOTOR/GEARS

STATE SOLID

DENSITY 200.00 LBS/CU. FT.

ATTRIBUTES METAL CYLINDER, COMPACT

ELEMENTS PRESENT .. COPPER

COMPOSITION STEEL, PLASTIC

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

10.00

50

41.50

100

93.00

RECLAMATION ACTION .. REPLACE WORN PARTS

***** WASTE ITEM NO. 6 FAILED VALVING, BEARINGS, SEALS, CONTROLS

STATE SOLID

DENSITY 100.00 LBS/CU. FT.

ATTRIBUTES METAL COMPACT

ELEMENTS PRESENT .. COPPER

COMPOSITION STEEL, PLASTIC

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

12.50

50

52.00

100

104.00

RECLAMATION ACTION .. REPLACE WORN PARTS

S/C SUBSYSTEM CREW QUARTERS HOUSEKEEPING CAPABILITY
 GROUP KEY 1.4.5

BASIC FUNCTION SUPPORT LIFE
 FUNCTIONAL REQUIREMENT PROVIDE FOR CREW HYGIENE

** EQUIPMENT/EXPERIMENT NO. 1 VACUUM CLEANER

S/C AREAS MAINTENANCE

*** WASTE SOURCE NO. 1 VACUUM CLEANER

DOCUMENT NO. 1.4.5.1.1

REFERENCE NO. 1 .. VOL.1 PRELIMINARY DESIGN REPORT (SPACE STATION HYGIENE, WASTE MANAGEMENT, AND FOOD SUBSYSTEMS). FHR # 3900 JUNE 1, 1970 FH/RAD.

REFERENCE NO. 2 .. HOUSEKEEPING AND TRASH DISPOSAL EQUIPMENT SPACE STATION.-FHR #3800 FEB.16, 1970 FH/RAD.

REFERENCE NO. 3 .. HYGIENE SYSTEMS ANALYSIS DEBRIS GENERATION AND FLOW PATTERNS.-FHR #3864 DEC.30, 1969 FH/RAD.

**** ** WASTE ITEM NO. 1 LIQUID/SOLID DEBRIS BAGS
 STATE SOLID
 DENSITY 60.00 LBS/CU. FT.
 ATTRIBUTES PLASTIC SHEET, ORGANIC DEBRIS
 ELEMENTS PRESENT ..
 COMPOSITION TEFLON
 GENERATION DATA ...

NO. OF MEN	RATE (LBS/YEAR)
12	5.10
50	21.10
100	42.40

RECLAMATION ACTION .. EMPTY, REVERSE FLUSH

S/C SUBSYSTEM CREW QUARTERS HOUSEKEEPING CAPABILITY
 GROUP KEY 1.4.5

** EQUIPMENT/EXPERIMENT NO. 1 VACUUM CLEANER

*** WASTE SOURCE NO. 1 VACUUM CLEANER

***** WASTE ITEM NO. 2 SOLID DEBRIS IN BAGS

STATE SOLID

DENSITY 10.00 LBS/CU. FT.

ATTRIBUTES ORGANIC

ELEMENTS PRESENT ..

COMPOSITION DUST, FOOD, HAIR

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

21.00

50

87.50

100

175.00

RECLAMATION ACTION .. NONE

***** WASTE ITEM NO. 3 FAILED BLOWER MOTOR

STATE SOLID

DENSITY 200.00 LBS/CU. FT.

ATTRIBUTES METAL COMPACT CYLIND.

ELEMENTS PRESENT .. AL, CU

COMPOSITION

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

21.00

50

87.50

100

175.00

RECLAMATION ACTION .. REPAIR, WORN PART

***** WASTE ITEM NO. 4 FAILED HOSE

STATE SOLID

DENSITY 20.00 LBS/CU. FT.

ATTRIBUTES PLASTIC HOLLOW TUBE

ELEMENTS PRESENT ..

COMPOSITION TEFLON

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

3.00

50

12.50

100

25.00

RECLAMATION ACTION .. PATCH

11/50/70

RUN NO. ** 2 **

PAGE 70

S/C SUBSYSTEM CREW QUARTERS HOUSEKEEPING CAPABILITY
GROUP KEY 1.4.5

* EQUIPMENT/EXPERIMENT NO. 2 SURFACE WASHER/WIPER(AUTOMATED MOP)
S/C AREAS MAINTENANCE

*** WASTE SOURCE NO. 1 SURFACE WASHER/WIPER(AUTOMATED MOP)

DOCUMENT NO. 1.4.5.2.1*

REFERENCE NO. 1 .. VOL. 1 PRELIMINARY DESIGN REPORT(SPACE STATION-HYGIENE, WASTE MANAGEMENT, AND FOOD SUBSYSTEMS)FHR #3900, JUNE 1, 1970, FH/RAD.

REFERENCE NO. 2 .. HOUSEKEEPING AND TRASH DISPOSAL EQUIPMENT SPACE STATION. FHR # 3880 FEBRUARY 16, 1970, FH/RAD.

REFERENCE NO. 3 .. PRELIMINARY DEFINITION-INTEGRATED HYGIENE SYSTEM MATERIAL PROVISIONS, FHR # 3871, FEBRUARY 2, 1970, FH/RAD.

REFERENCE NO. 4 .. HYGIENE SYSTEMS ANALYSIS DEBRIS GENERATION AND FLOW PATTERNS, FHR #3864, DECEMBER 30, 1969, FH/RAD

***** WASTE ITEM NO. 1 EXHAUSTED FILTERS
STATE SOLID
DENSITY 20.00 LBS/CU. FT.
ATTRIBUTES PLASTIC SHEET, ORGANIC DEBRIS
ELEMENTS PRESENT ..
COMPOSITION TEFLON, GLASS
GENERATION DATA ...

NO. OF MEN	RATE(LBS/YEAR)
12	10.80
50	45.00
100	90.00

RECLAMATION ACTION .. REVERSE FLUSH

S/C SUBSYSTEM CREW QUARTERS HOUSEKEEPING CAPABILITY
 GROUP KEY 1.4.5

** EQUIPMENT/EXPERIMENT NO. 2 SURFACE WASHER/WIPER(AUTOMATED M
 OP)

*** WASTE SOURCE NO. 1 SURFACE WASHER/WIPER(AUTOMATED MCP)

***** WASTE ITEM NO. 2 DIRTY SPONGE HEADS

STATE SOLID

DENSITY 3.00 LBS/CU. FT.

ATTRIBUTES PLASTIC,ORGANIC DEBRIS

ELEMENTS PRESENT ..

COMPOSITION POLYURETHANE

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

7.20

50

30.00

100

60.00

RECLAMATION ACTION .. DECONTAMINATE(LAUNDER)

***** WASTE ITEM NO. 3 USED WASH WATER AND BACTERICIDE

STATE LIQUID

DENSITY 62.40 LBS/CU. FT.

ATTRIBUTES WATER

ELEMENTS PRESENT ..

COMPOSITION WATER

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

315.00

50

1313.00

100

2626.00

RECLAMATION ACTION .. FILTER DISTILL

***** WASTE ITEM NO. 4 FAILED BLOWER

STATE SOLID

DENSITY 200.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL,CU

COMPOSITION

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

2.10

50

5.20

100

18.20

RECLAMATION ACTION .. REPLACE WORN PARTS

11/30/70

RUN NO. ** 2 **

PAGE 72

S/C SUBSYSTEM CREW QUARTERS HOUSEKEEPING CAPABILITY
GROUP KEY 1.4.5

** EQUIPMENT/EXPERIMENT NO. 2 SURFACE WASHER/WIPER(AUTOMATED MOP)

*** WASTE SOURCE NO. 1 SURFACE WASHER/WIPER(AUTOMATED MOP)

***** WASTE ITEM NO. 5 FAILED HOSE

STATE SOLID

DENSITY 20.00 LBS/CU. FT.

ATTRIBUTES PLASTIC HOLLOW TUBE

ELEMENTS PRESENT ..

COMPOSITION TEFLON

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

1.25

50

0.00

100

10.40

RECLAMATION ACTION .. PATCH

PROVIDE AND CONTROL ATMOSPHERIC ENVIRONMENT

S/C SUBSYSTEM ATMOSPHERIC GAS SUPPLY

GROUP KEY 1.5.1

BASIC FUNCTION SUPPORT LIFE

FUNCTIONAL REQUIREMENT ENVIRONMENTAL CONTROL/LIFE SUPPORT

** EQUIPMENT/EXPERIMENT NO. 1 SUPERCRITICAL STORAGE AND SUPPLY

S/C AREAS STORAGE

**** WASTE SOURCE NO. 1 SUPERCRITICAL STORAGE AND SUPPLY

DOCUMENT NO. 1.5.1.1.1*

REFERENCE NO. 1 .. ROTH,E.M.,SELECTION OF SPACE CABIN ATMOSPHERES. PART I AND IV, NASA TN-D-2008, AUGUST 1963

REFERENCE NO. 2 .. LIFE SUPPORT FOR SPACE FLIGHTS OF EXTENDED TIME PERIODS.NASA CR-614,GENERAL DYNAMICS(CONTRACT NAS 1-2934

***** WASTE ITEM NO. 1 PRESSURE SEALS

STATE SOLID

DENSITY 100.00 LBS/CU. FT.

ATTRIBUTES METAL RING

ELEMENTS PRESENT .. FE,NI,CU

COMPOSITION

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

0.64

50

2.60

100

5.20

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 PRESSURE SENSING SELECTOR VALVE

STATE SOLID

DENSITY 100.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL,FE,NI

COMPOSITION

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

1.50

50

6.00

100

12.00

RECLAMATION ACTION .. N/R

S/C SUBSYSTEM ATMOSPHERIC CONTROL

GROUP KEY 1.5.2

BASIC FUNCTION SUPPORT LIFE

FUNCTIONAL REQUIREMENT ENVIRONMENTAL CONTROL/LIFE SUPPORT

** EQUIPMENT/EXPERIMENT NO. 1 ATMOSPHERIC MIXING AND PRESSURE CONTROL

S/C AREAS STORAGE

*** WASTE SOURCE NO. 1 ATMOSPHERIC MIXING AND PRESSURE CONTROL

DOCUMENT NO. 1.5.2.1.1*

***** WASTE ITEM NO. 1 REGULATOR DIAPHRAM

STATE SOLID

DENSITY 550.00 LBS/CU. FT.

ATTRIBUTES METAL, SHEET

ELEMENTS PRESENT .. FE, NI, CO

COMPOSITION

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

0.02

50

0.10

100

0.20

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 PRESSURE SEALS

STATE SOLID

DENSITY 20.00 LBS/CU. FT.

ATTRIBUTES METAL, RING

ELEMENTS PRESENT .. FE, NI, CU

COMPOSITION

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

0.30

50

1.20

100

2.50

RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

PAGE 75

S/C SUBSYSTEM ATMOSPHERIC CONTROL
GROUP KEY 1.5.2

** EQUIPMENT/EXPERIMENT NO. 1 ATMOSPHERIC MIXING AND PRESSURE
CONTROL

*** WASTE SOURCE NO. 1 ATMOSPHERIC MIXING AND PRESSURE CONTROL
*** *****

***** WASTE ITEM NO. 3 PRESSURE SENSOR, CONTACT SET

STATE SOLID
DENSITY 300.00 LBS/CU. FT.
ATTRIBUTES METAL, STRIP
ELEMENTS PRESENT .. FE, CU
COMPOSITION
GENERATION DATA ...
NO. OF MEN RATE(LBS/YEAR)
12 0.01
50 0.05
100 0.10

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 4 SOLENOID VALVE

STATE SOLID
DENSITY 290.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. FE, CU
COMPOSITION
GENERATION DATA ...
NO. OF MEN RATE(LBS/YEAR)
12 0.50
50 2.00
100 4.00

RECLAMATION ACTION .. REPAIR ON BOARD

11/30/70

RUN NO. ** 2 **

PAGE 76

S/C SUBSYSTEM ATMOSPHERIC TEMPERATURE AND HUMIDITY CONTROL
GROUP KEY 1.5.3

BASIC FUNCTION SUPPORT LIFE
FUNCTIONAL REQUIREMENT ENVIRONMENTAL CONTROL/LIFE SUPPORT
SYSTEMS

** EQUIPMENT/EXPERIMENT NO. 1 VARIABLE SPEED FAN SYSTEM

S/C AREAS EQUIPMENT

*** WASTE SOURCE NO. 1 VARIABLE SPEED FAN

DOCUMENT NO. 1.5.3.1.1*

REFERENCE NO. 1 .. ROTH, E.M , SELECTION OF SPACE CABIN ATMOSPHERES. PART I AND IV, NASA-TN-D-2008, AUGUST 1963.

REFERENCE NO. 2 .. LIFE SUPPORT FOR SPACE FLIGHTS OF EXTENDED TIME PERIODS. NASA CR-614, GENERAL DYNAMICS (CONTRACT NAS 1-294)

***** WASTE ITEM NO. 1 MICROPOROUS FILTER

STATE SOLID

DENSITY 30.00 LBS/CU. FT.

ATTRIBUTES MEMBRANE, PLASTIC

ELEMENTS PRESENT ..

COMPOSITION FLUORINATED, PLASTIC, COMPOUND

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

0.16

50

0.70

100

1.50

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 PRESSURE SEAL

STATE SOLID

DENSITY 20.00 LBS/CU. FT.

ATTRIBUTES RUBBER, SHEET

ELEMENTS PRESENT ..

COMPOSITION BUTYL

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

1.00

50

4.00

100

8.00

RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

PAGE 77

S/C SUBSYSTEM ATMOSPHERIC TEMPERATURE AND HUMIDITY CONTROL
GROUP KEY 1.5.3

** EQUIPMENT/EXPERIMENT NO. 1 VARIABLE SPEED FAN SYSTEM

*** WASTE SOURCE NO. 1 VARIABLE SPEED FAN

***** WASTE ITEM NO. 3 FAN MOTOR

STATE SOLID

DENSITY 290.00 LBS/CU. FT.

ATTRIBUTES CYLINDRICAL, METAL

ELEMENTS PRESENT .. COPPER, IRON

COMPOSITION

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

3.00

50

7.00

100

14.00

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 4 TEMPERATURE CONTROL UNIT PARTS

STATE SOLID

DENSITY 60.00 LBS/CU. FT.

ATTRIBUTES PLASTIC, METAL

ELEMENTS PRESENT .. CU, FE

COMPOSITION PHENOLIC

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

0.32

50

1.30

100

2.60

RECLAMATION ACTION .. REPAIR COMPONENT

***** WASTE ITEM NO. 5 FACE WICKS

STATE SOLID

DENSITY 60.00 LBS/CU. FT.

ATTRIBUTES WET, FIBROUS MAT

ELEMENTS PRESENT ..

COMPOSITION COTTON, NYLON

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

1.20

50

5.00

100

10.00

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM ATMOSPHERIC TEMPERATURE AND HUMIDITY CONTROL
GROUP KEY 1.5.3

** EQUIPMENT/EXPERIMENT NO. 1 VARIABLE SPEED FAN SYSTEM ,
*** WASTE SOURCE NO. 1 VARIABLE SPEED FAN

*** WASTE ITEM NO. 6 HUMIDITY CONTROL UNIT PARTS

STATE SOLID
DENSITY 60.00 LBS/CU. FT.
ATTRIBUTES PLASTIC, METAL
ELEMENTS PRESENT .. CU, FE
COMPOSITION PHENOLIC
GENERATION DATA ...
NO. OF MEN RATE(LBS/YEAR)
12 0.32
50 1.30
100 2.60

RECLAMATION ACTION .. REPAIR COMPONENT

*** WASTE ITEM NO. -7 HUMIDITY CONTROL VALVE

STATE SOLID
DENSITY 260.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. FE, NI, CU
COMPOSITION
GENERATION DATA ...
NO. OF MEN RATE(LBS/YEAR)
12 1.50
50 6.00
100 12.00

RECLAMATION ACTION .. REPAIR CN BOARD

S/C SUBSYSTEM TRACE CONTAMINANT REMOVAL SYSTEM

GROUP KEY 1.5.4

BASIC FUNCTION SUPPORT LIFE

FUNCTIONAL REQUIREMENT ENVIRONMENTAL CONTROL/LIFE SUPPORT

** EQUIPMENT/EXPERIMENT NO. 1 REGENERABLE CHARCOAL/CATALYTIC OXIDATION SYSTEM

S/C AREAS EQUIPMENT

*** WASTE SOURCE NO. 1 REGENERABLE CHARCOAL/CATALYTIC OXIDATION SYSTEM

DOCUMENT NO. 1.5.4.1.1*

***** WASTE ITEM NO. 1 FAN MOTOR

STATE SOLID

DENSITY 250.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. FE, CU

COMPOSITION

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

1.00

50

3.00

100

5.00

RECLAMATION ACTION .. REPAIR ON BOARD

***** WASTE ITEM NO. 2 REGULATOR

STATE SOLID

DENSITY 250.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL, FE, NI

COMPOSITION

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

0.09

50

0.40

100

0.80

RECLAMATION ACTION .. REPAIR ON BOARD

11/30/70

RUN NO. ** 2 **

PAGE 80

S/C SUBSYSTEM TRACE CONTAMINANT REMOVAL SYSTEM
GROUP KEY 1.5.4

** EQUIPMENT/EXPERIMENT NO. 1 REGENERABLE CHARCOAL/CATALYTIC OXIDATION SYSTEM

*** WASTE SOURCE NO. 1 REGENERABLE CHARCOAL/CATALYTIC OXIDATION SYSTEM

*** WASTE ITEM NO. 3 HEATER CONTROL

STATE SOLID

DENSITY 225.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. FE, CU

COMPOSITION

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

2.00

50

6.00

100

10.00

RECLAMATION ACTION .. REPAIR ON BOARD

*** WASTE ITEM NO. 4 4 WAY VALVE

STATE SOLID

DENSITY 285.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. FE, NI

COMPOSITION

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

5.00

50

20.00

100

35.00

RECLAMATION ACTION .. REPAIR ON BOARD

*** WASTE ITEM NO. 5 PRE-SORBER/POST-SORBER

STATE SOLID

DENSITY 180.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL

COMPOSITION CU₂SO₄, SI

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

4.00

50

18.00

100

36.00

RECLAMATION ACTION .. N/R

S/C SUBSYSTEM TRACE CONTAMINANT REMOVAL SYSTEM
 GROUP KEY 1.5.4

** EQUIPMENT/EXPERIMENT NO. 1 REGENERABLE CHARCOAL/CATALYTIC OXIDATION SYSTEM

** WASTE SOURCE NO. 1 REGENERABLE CHARCOAL/CATALYTIC OXIDATION SYSTEM

*** WASTE ITEM NO. 6 CATALYTIC BURNER
 STATE SOLID
 DENSITY 280.00 LBS/CU. FT.
 ATTRIBUTES METAL
 ELEMENTS PRESENT .. AL
 COMPOSITION PALADIUM ALUMINA CATALYST
 GENERATION DATA ...
 NO. OF MEN RATE(LBS/YEAR)
 12 8.00
 50 36.00
 100 72.00
 RECLAMATION ACTION .. N/R

*** WASTE ITEM NO. 7 CHARCOAL BED
 STATE SOLID
 DENSITY 40.00 LBS/CU. FT.
 ATTRIBUTES WOOD
 ELEMENTS PRESENT .. ALUMINUM
 COMPOSITION ACTIVATED CHARCOAL
 GENERATION DATA ...
 NO. OF MEN RATE(LBS/YEAR)
 12 8.00
 50 36.00
 100 72.00
 RECLAMATION ACTION .. REPLACE CHARCOAL

***** WASTE ITEM NO. 8 CONTAMINATED GASSES
 STATE GASEOUS
 DENSITY 0.00 LBS/CU. FT.
 ATTRIBUTES AMBIENT
 ELEMENTS PRESENT ..
 COMPOSITION H CL,CL2,F2,BENEZENE,NH3,FREON 13,CH4,ET
 HANOL,H2S,TOLUENE,ETC.
 GENERATION DATA ...
 NO. OF MEN RATE(LBS/YEAR)
 12 0.80
 50 1.00
 100 1.80
 RECLAMATION ACTION ..

S/C SUBSYSTEM BACTERIAL/PARTICULATE CONTROL SYSTEM
 GROUP KEY 1.5.5

BASIC FUNCTION SUPPORT LIFE
 FUNCTIONAL REQUIREMENT ENVIRONMENTAL CONTROL/LIFE SUPPORT

** EQUIPMENT/EXPERIMENT NO. 1 DIRECT STORAGE METHOD

S/C AREAS EQUIPMENT

*** WASTE SOURCE NO. 1 DIRECT STORAGE METHOD

DOCUMENT NO. 1.5.5.1.1*

***** WASTE ITEM NO. 1 FILTER BAGS

STATE SOLID

DENSITY 4.00 LBS/CU. FT.

ATTRIBUTES PLASTIC

ELEMENTS PRESENT ..

COMPOSITION POLYETHYLENE

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

24.00

50

100.00

100

200.00

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 FILTER SCREEN

STATE SOLID

DENSITY 20.00 LBS/CU. FT.

ATTRIBUTES FILM

ELEMENTS PRESENT .. FF,NI

COMPOSITION PAPER

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

360.00

50

1440.00

100

2880.00

RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM CARBON DIOXIDE CONTROL AND OXYGEN GENERATION
GROUP KEY 1.5.6

BASIC FUNCTION SUPPORT LIFE
FUNCTIONAL REQUIREMENT ENVIRONMENTAL CONTROL/LIFE SUPPORT

** EQUIPMENT/EXPERIMENT NO. 1 CO2 REMOVAL/CONCENTRATION SYSTEMS
S/C AREAS EQUIPMENT

*** WASTE SOURCE NO. 1 CO2 REMOVAL/CONCENTRATION SYSTEMS
DOCUMENT NO. 1.5.6.1.1*

***** WASTE ITEM NO. 1 FAN
STATE SOLID
DENSITY 290.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. FE, CU
COMPOSITION
GENERATION DATA ...
NO. OF MEN RATE(LBS/YEAR)
12 8.50
50 17.00
100 25.50
RECLAMATION ACTION .. REPAIR ON BOARD

***** WASTE ITEM NO. 2 ABSORPTION BED
STATE SOLID
DENSITY 105.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. FE
COMPOSITION RESIN
GENERATION DATA ...
NO. OF MEN RATE(LBS/YEAR)
12 6.00
50 18.00
100 24.00
RECLAMATION ACTION .. N/R

11/30/70

RUN NO. 2

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S/C SUBSYSTEM CARBON DIOXIDE CONTROL AND OXYGEN GENERATION
GROUP KEY 1.5.6

** EQUIPMENT/EXPERIMENT NO. 1 CO2 REMOVAL/CONCENTRATION SYSTEM
S

*** WASTE SOURCE NO. 1 CO2 REMOVAL/CONCENTRATION SYSTEMS

***** WASTE ITEM NO. 3 DIVERTER VALVE

STATE SOLID

DENSITY 230.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. FE, CU

COMPOSITION

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

1.00

50

3.00

100

6.00

RECLAMATION ACTION ..

***** WASTE ITEM NO. 4 CONDENSER/SEPARATOR

STATE SOLID

DENSITY 270.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. FE, NI, CU

COMPOSITION

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

40.00

50

120.00

100

200.00

RECLAMATION ACTION ..

***** WASTE ITEM NO. 5 TIMEP

STATE SOLID

DENSITY 116.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. FE, NI

COMPOSITION

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

2.00

50

7.00

100

12.00

RECLAMATION ACTION .. REPAIR ON BOARD

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM CARBON DIOXIDE CONTROL AND OXYGEN GENERATION
GROUP KEY 1.5.6

** EQUIPMENT/EXPERIMENT NO. 1 CO2 REMOVAL/CONCENTRATION SYSTEM
S

*** WASTE SOURCE NO. 1 CO2 REMOVAL/CONCENTRATION SYSTEMS

*** WASTE ITEM NO. 6 SOLENOID VALVE

STATE SOLID

DENSITY 300.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. FE, CU

COMPOSITION

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

2.00

50

8.00

100

16.00

RECLAMATION ACTION .. REPAIR ON BOARD

*** WASTE ITEM NO. 7 COMPRESSOR

STATE SOLID

DENSITY 300.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. FE, AL

COMPOSITION

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

2.00

50

8.00

100

16.00

RECLAMATION ACTION .. REPAIR ON BOARD

*** WASTE ITEM NO. 8 WATER REGULATOR

STATE SOLID

DENSITY 520.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. FE, NI

COMPOSITION

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

0.10

50

0.40

100

0.80

RECLAMATION ACTION ..

** MANNEO SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NC. ** 2 **

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S/C SUBSYSTEM CARBON DIOXIDE CONTROL AND OXYGEN GENERATION
GROUP KEY 1.5.6

** EQUIPMENT/EXPERIMENT NO. 1 CO2 REMOVAL/CONCENTRATION SYSTEM
S

*** WASTE SOURCE NO. 1 CO2 REMOVAL/CONCENTRATION SYSTEMS

*** **

***** WASTE ITEM NO. 9 CHECK VALVE

STATE SOLID

DENSITY 20.00 LBS/CU. FT.

ATTRIBUTES RUBBER

ELEMENTS PRESENT ..

COMPOSITION BUTYL

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

0.03

50

0.12

100

0.24

RECLAMATION ACTION .. REPLACE SEAL

***** WASTE ITEM NO. 10 CARBON DIOXIDE

STATE GAS

DENSITY 0.11 LBS/CU. FT.

ATTRIBUTES CO2

ELEMENTS PRESENT ..

COMPOSITION BUTYL

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

9000.00

50

37500.00

100

75000.00

RECLAMATION ACTION .. REDUCE

S/C SUBSYSTEM CARBON DIOXIDE CONTROL AND OXYGEN GENERATION
GROUP KEY 1.5.6

** EQUIPMENT/EXPERIMENT NO. 2 CO2 REDUCTION SYSTEM

S/C AREAS EQUIPMENT

*** WASTE SOURCE NO. 1 CO2 REDUCTION SYSTEM

DOCUMENT NO. 1.5.6.2.1*

***** WASTE ITEM NO. 1 HUMIDIFIER

STATE SOLID

DENSITY 95.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. ALUMINUM

COMPOSITION

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

3.00

50

12.00

100

24.00

RECLAMATION ACTION .. REPLACE WICKING

***** WASTE ITEM NO. 2 HEATER CONTROL

STATE SOLID

DENSITY 225.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. FE, CU

COMPOSITION

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

2.00

50

6.00

100

10.00

RECLAMATION ACTION .. REPAIR ON BOARD

***** WASTE ITEM NO. 3 MAIN CONTROL

STATE SOLID

DENSITY 200.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. FE, CU

COMPOSITION

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

2.00

50

6.00

100

10.00

RECLAMATION ACTION .. REPAIR ON BOARD

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM CARBON DIOXIDE CONTRL AND OXYGEN GENERATION
GROUP KEY 1.5.6

** EQUIPMENT/EXPERIMENT NO. 2 CO2 REDUCTION SYSTEM

*** WASTE SOURCE NO. 1 CO2 REDUCTION SYSTEM

*** WASTE ITEM NO. 4 ELECTROLYTE MODULES

STATE SOLID

DENSITY 285.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. FE, NI,

COMPOSITION CERAMIC

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

45.00

50

150.00

100

300.00

RECLAMATION ACTION .. N/R

*** WASTE ITEM NO. 5 HYDROGEN SEPARATOR

STATE SOLID

DENSITY 165.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL, PD

COMPOSITION --

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

10.00

50

35.00

100

80.00

RECLAMATION ACTION .. N/R

*** WASTE ITEM NO. 6 HEAT EXCHANGER

STATE SOLID

DENSITY 125.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL, FE, NI

COMPOSITION --

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

7.00

50

21.00

100

42.00

RECLAMATION ACTION .. N/R

11/30/70

RUN NC. ** 2 **

PAGE 90

S/C SUBSYSTEM CARBON DIOXIDE CONTROL AND OXYGEN GENERATION
GROUP KEY 1.5.6

** EQUIPMENT/EXPERIMENT NO. 2 CO2 REDUCTION SYSTEM

*** WASTE SOURCE NO. 1 CO2 REDUCTION SYSTEM

***** WASTE ITEM NO. 7 COMPRESSOR

STATE SOLID

DENSITY 300.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. FE, NI

COMPOSITION

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

8.00

50

16.00

100

32.00

RECLAMATION ACTION .. REPAIR ON BOARD

***** WASTE ITEM NO. 8 CATALYST CARTRIDGES

STATE SOLID

DENSITY 150.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT ..

COMPOSITION CATALYTIC AGENT

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

50.00

50

200.00

100

400.00

RECLAMATION ACTION .. REPLACE

***** WASTE ITEM NO. 9 4 WAY VALVES

STATE SOLID

DENSITY 280.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. FE, NI

COMPOSITION

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

5.00

50

20.00

100

40.00

RECLAMATION ACTION .. REPAIR ON BOARD

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

PAGE 91

S/C SUBSYSTEM CARBON DIOXIDE CONTROL AND OXYGEN GENERATION
GROUP KEY 1.5.6

** EQUIPMENT/EXPERIMENT NO. 2 CO2 REDUCTION SYSTEM

*** WASTE SOURCE NO. 1 CO2 REDUCTION SYSTEM

***** WASTE ITEM NO. 10 CHECK VALVE

STATE SOLID

DENSITY 20.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT ..

COMPOSITION BUTYL

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

0.03

50

0.12

100

0.24

RECLAMATION ACTION ..

***** WASTE ITEM NO. 11 CO2 REGULATOR

STATE SOLID

DENSITY 250.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL, FE, NI

COMPOSITION BUTYL

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

0.10

50

0.40

100

0.80

RECLAMATION ACTION .. REPAIR ON BOARD

***** WASTE ITEM NO. 12 OXYGEN

STATE GASEOUS

DENSITY 0.07 LBS/CU. FT.

ATTRIBUTES AMBIENT

ELEMENTS PRESENT .. C2

COMPOSITION BUTYL

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

7000.00

50

29000.00

100

57000.00

RECLAMATION ACTION .. DUMP TO CABIN

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

PAGE 92

S/C SUBSYSTEM CARBON DIOXIDE CONTROL AND OXYGEN GENERATION
GROUP KEY 1.5.6

** EQUIPMENT/EXPERIMENT NO. 2 CO2 REDUCTION SYSTEM

*** WASTE SOURCE NO. 1 CO2 REDUCTION SYSTEM

***** WASTE ITEM NO. 13 CARBON

STATE SOLID

DENSITY 50.00 LBS/CU. FT.

ATTRIBUTES CHUNKS

ELEMENTS PRESENT .. C

COMPOSITION

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

2220.00

50

9000.00

100

18000.00

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 14 HYDROGEN

STATE GASEOUS

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES AMBIENT

ELEMENTS PRESENT .. H2

COMPOSITION

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

45.00

50

180.00

100

360.00

RECLAMATION ACTION .. N/R

S/C SUBSYSTEM CARBON DIOXIDE CONTROL AND OXYGEN GENERATION
 GROUP KEY 1.5.6

** EQUIPMENT/EXPERIMENT NO. 3 WATER ELECTROLYSIS SYSTEM

S/C AREAS

*** WASTE SOURCE NO. 1 WATER ELECTROLYSIS

DOCUMENT NO. 1.5.6.3.1*

*** WASTE ITEM NO. 1 EVAPORATOR

STATE SOLID

DENSITY 95.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. ALUMINUM

COMPOSITION

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

3.00

50

12.00

100

24.00

RECLAMATION ACTION .. REPLACE WICKING

*** WASTE ITEM NO. 2 STARTUP HEATER ASSEMBLY

STATE SOLID

DENSITY 225.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. FE, CU

COMPOSITION

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

2.00

50

6.00

100

10.00

RECLAMATION ACTION ..

*** WASTE ITEM NO. 3 ELECTROLYTIC MODULE

STATE SOLID

DENSITY 130.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. FE, NI

COMPOSITION

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

5.00

50

20.00

100

40.00

RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM CARBON DIOXIDE CONTROL AND OXYGEN GENERATION
GROUP, KEY 1.5.6

** EQUIPMENT/EXPERIMENT NO. 3 WATER ELECTROLYSIS SYSTEM

*** WASTE SOURCE NO. 1 WATER ELECTROLYSIS

*** *****

*** WASTE ITEM NO. 4 FAN

STATE SOLID

DENSITY 250.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. FE, CU

COMPOSITION

GENERATION DATA ...

NO. OF MEN

RATE (LBS/YEAR)

12

1.00

50

3.00

100

5.00

RECLAMATION ACTION .. REPAIR ON BOARD

S/C SUBSYSTEM THERMAL TRANSPORT CIRCUIT
 GROUP KEY 1.5.7

BASIC FUNCTION SUPPORT LIFE
 FUNCTIONAL REQUIREMENT ENVIRONMENTAL CONTROL/LIFE SUPPORT

** EQUIPMENT/EXPERIMENT NO. 1 COOLANT LOOP

S/C AREAS EQUIPMENT

**** WASTE SOURCE NO. 1 COOLANT LOOP

DOCUMENT NO. 1.5.7.1.1*

***** WASTE ITEM NO. 1 BYPASS VALVE CONTROL

STATE SOLID
 DENSITY 200.00 LBS/CU. FT.
 ATTRIBUTES METAL
 ELEMENTS PRESENT .. FE, CU, NI
 COMPOSITION
 GENERATION DATA ...

NO. OF MEN	RATE(LBS/YEAR)
12	2.00
50	8.00
100	16.00

 RECLAMATION ACTION .. REPAIR ON BOARD

***** WASTE ITEM NO. 2 BYPASS VALVE

STATE SOLID
 DENSITY 280.00 LBS/CU. FT.
 ATTRIBUTES METAL
 ELEMENTS PRESENT .. FE, CU
 COMPOSITION
 GENERATION DATA ...

NO. OF MEN	RATE(LBS/YEAR)
12	5.00
50	20.00
100	40.00

 RECLAMATION ACTION .. REPAIR ON BOARD

S/C SUBSYSTEM WATER MANAGEMENT
 GROUP KEY 1.5.8

BASIC FUNCTION SUPPORT LIFE
 FUNCTIONAL REQUIREMENT ENVIRONMENTAL CONTROL/LIFE SUPPORT

* EQUIPMENT/EXPERIMENT NO. 1 WATER RECLAMATION SYSTEM

S/C AREAS EQUIPMENT

*** WASTE SOURCE NO. 1 WATER RECLAMATION SYSTEM

DOCUMENT NO. 1.5.8.1.1*

REFERENCE NO. 1 .. METZGER,C. HEARLD,A.B. MC MULLEN,B. WASTE
 RECOVERY FROM HUMAN WASTE DURING PROLONGED CONFINEMENT.TECH.REP.AMRL-TR-65-170
 ,AEROSPACE MEDICAL RESEARCH LABS.,APRIL

***** WASTE ITEM NO. 1 HEATER CONTROL
 STATE SOLID
 DENSITY 280.00 LBS/CU. FT.
 ATTRIBUTES METAL
 ELEMENTS PRESENT .. FE,CU,NI
 COMPOSITION
 GENERATION DATA ...

NO. OF MEN	RATE(LBS/YEAR)
12	2.00
50	8.00
100	16.00

-RECLAMATION ACTION .. REPAIR ON BOARD

***** WASTE ITEM NO. 2 CONDUCTIVITY SENSOR
 STATE SOLID
 DENSITY 80.00 LBS/CU. FT.
 ATTRIBUTES PLASTIC
 ELEMENTS PRESENT .. FE,CU
 COMPOSITION PHENOLIC
 GENERATION DATA ...

NO. OF MEN	RATE(LBS/YEAR)
12	1.00
50	4.00
100	8.00

RECLAMATION ACTION .. REPAIR ON BOARD

11/30/70

RUN NO. ** 2 **

PAGE 97

S/C SUBSYSTEM WATER MANAGEMENT
GROUP KEY 1.5.8

** EQUIPMENT/EXPERIMENT NO. 1 WATER RECLAMATION SYSTEM

*** WASTE SOURCE NO. 1 WATER RECLAMATION SYSTEM

***** WASTE ITEM NO. 3 HEATING UNIT

STATE SOLID

DENSITY 300.00 LBS/CU. FT.

ATTRIBUTES CERAMIC

ELEMENTS PRESENT .. NI

COMPOSITION CERAMIC

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

1.00

50

4.00

100

8.00

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 4 PRESSURE REGULATOR

STATE SOLID

DENSITY 550.00 LBS/CU. FT.

ATTRIBUTES METALIC

ELEMENTS PRESENT .. AL

COMPOSITION STAINLESS STEEL

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

0.10

50

0.40

100

0.80

RECLAMATION ACTION .. REPAIR ON BOARD

***** WASTE ITEM NO. 5 SOLIDS SENSOR

STATE SOLID

DENSITY 80.00 LBS/CU. FT.

ATTRIBUTES PLASTIC

ELEMENTS PRESENT .. FE,CU

COMPOSITION PHENOLIC

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

1.28

50

5.00

100

10.00

RECLAMATION ACTION .. REPAIR ON BOARD

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM WATER MANAGEMENT
 GROUP KEY 1.5.8

** EQUIPMENT/EXPERIMENT NO. 1 WATER RECLAMATION SYSTEM
 *** WASTE SOURCE NO. 1 WATER RECLAMATION SYSTEM

***** WASTE ITEM NO. 6 PRESSURE SEALS

STATE SOLID

DENSITY 20.00 LBS/CU. FT.

ATTRIBUTES RUBBER

ELEMENTS PRESENT ..

COMPOSITION BUTYL

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

0.03

50

0.13

100

0.30

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 7 SOLENOID VALVE

STATE SOLID

DENSITY 280.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. FE,CU

COMPOSITION

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

5.00

50

20.00

100

40.00

RECLAMATION ACTION .. REPAIR ON BOARD

***** WASTE ITEM NO. 8 BACTERIAL FILTER CANISTER

STATE SOLID

DENSITY 30.00 LBS/CU. FT.

ATTRIBUTES METAL CYLINDER

ELEMENTS PRESENT ..

COMPOSITION FLUORINATED PLASTIC COMPOUND

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

6.00

50

11.00

100

22.00

RECLAMATION ACTION .. RECHARGE

S/C SUBSYSTEM WATER MANAGEMENT
GROUP KEY 1.5.8

** EQUIPMENT/EXPERIMENT NO. 1 WATER RECLAMATION SYSTEM

*** WASTE SOURCE NO. 1 WATER RECLAMATION SYSTEM

***** WASTE ITEM NO. 9 CHARCOAL CANISTER

STATE SOLID

DENSITY 66.00 LBS/CU. FT.

ATTRIBUTES METAL CYLINDER

ELEMENTS PRESENT ..

COMPOSITION ACTIVATED CHARCOAL

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

150.00

50

500.00

100

1000.00

RECLAMATION ACTION .. REFILL

***** WASTE ITEM NO. 10 WASTE CONCENTRATE

STATE LIQUID

DENSITY 64.00 LBS/CU. FT.

ATTRIBUTES FLUID

ELEMENTS PRESENT ..

COMPOSITION URINE RESIDUUM

GENERATION DATA ...

NO. OF MEN

RATE(LBS/YEAR)

12

1490.00

50

6200.00

100

12400.00

RECLAMATION ACTION .. N/R

S/C SUBSYSTEM WATER MANAGEMENT
GROUP KEY 1.5.8

** EQUIPMENT/EXPERIMENT NO. 2 POTABLE WATER STORAGE SYSTEM

S/C AREAS EQUIPMENT

*** WASTE SOURCE NO. 1 POTABLE WATER STORAGE

DOCUMENT NO. 1.5.8.2.1*

REFERENCE NO. 1 .. FEINDLER, K. FILTERING SYSTEM FOR AEROSPACE
E WATER RECLAMATION. TECH REP. AMRL-TR-67
-157, AEROSPACE MEDICAL RESEARCH LAB., DE
C. 1967.

REFERENCE NO. 2 .. METZGER, C. HEARLD, A. B. MC MULLEN, B. EVAL
UATION OF WATER RECLAMATION SYSTEMS AND
ANALYSIS OF RECOVERED WATER FOR HUMAN CO
NSUMPTION, TECH. REP. AMRL-TR-65-37, AMRL, FE

**** WASTE ITEM NO. 1 PRESSURE SEALS

STATE SOLID
DENSITY 80.00 LBS/CU. FT.
ATTRIBUTES PLASTIC
ELEMENTS PRESENT .. CU, FE
COMPOSITION PHENOLIC
GENERATION DATA ...

NO. OF MEN	RATE (LBS/YEAR)
12	1.00
50	3.20
100	4.40

RECLAMATION ACTION .. N/R

*** WASTE ITEM NO. 2 CAPACITY CONTROL

STATE
DENSITY 0.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION
GENERATION DATA ...

NO. OF MEN	RATE (LBS/YEAR)
12	0.00
50	0.00
100	0.00

RECLAMATION ACTION ..

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM WATER MANAGEMENT
GROUP KEY 1.5.8

** EQUIPMENT/EXPERIMENT NO. 2 POTABLE WATER STORAGE SYSTEM
*** WASTE SOURCE NO. 1 POTABLE WATER STORAGE

***** WASTE ITEM NO. 3 SOLENOID VALVE

STATE SOLID
DENSITY 280.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. FE,CU
COMPOSITION
GENERATION DATA ...

NO. OF MEN	RATE(LBS/YEAR)
12	5.00
50	15.00
100	22.50

RECLAMATION ACTION .. REPAIR ON BOARD

***** WASTE ITEM NO. 4 HEATER SENSOR/CONTROL

STATE SOLID
DENSITY 280.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. FE,CU,NI
COMPOSITION
GENERATION DATA ...

NO. OF MEN	RATE(LBS/YEAR)
12	0.70
50	2.10
100	3.20

RECLAMATION ACTION .. REPAIR ON BOARD

***** WASTE ITEM NO. 5 FILTER, BACTERIAL

STATE MEMBRANE
DENSITY 30.00 LBS/CU. FT.
ATTRIBUTES SHEET
ELEMENTS PRESENT ..
COMPOSITION FLUORINATED PLASTIC COMPOUND
GENERATION DATA ...

NO. OF MEN	RATE(LBS/YEAR)
12	1.60
50	6.70
100	13.50

RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM WATER MANAGEMENT
GROUP KEY 1.5.8

** EQUIPMENT/EXPERIMENT NO. 2 POTABLE WATER STORAGE SYSTEM
** WASTE SOURCE NO. 1 POTABLE WATER STORAGE
** *****

***** WASTE ITEM NO. 6 HEATER ELEMENT
STATE SOLID
DENSITY 300.00 LBS/CU. FT.
ATTRIBUTES CERAMIC
ELEMENTS PRESENT .. NI
COMPOSITION CERAMIC MATERIAL
GENERATION DATA ...
NO. OF MEN RATE(LBS/YEAR)
12 1.00
50 3.00
100 5.00
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 7 PACKAGING
STATE SOLID
DENSITY 5.00 LBS/CU. FT.
ATTRIBUTES PLASTIC SPONGY
ELEMENTS PRESENT ..
COMPOSITION STYROFOAM
GENERATION DATA ...
NO. OF MEN RATE(LBS/YEAR)
12 1.00
50 3.00
100 5.00
RECLAMATION ACTION .. REUSE AS IS

** MANED SPACECRAFT WASTE GENERATION DATA **

MAINTAIN SPACECRAFT FUNCTIONS

CONTROL SPACECRAFT ORBIT POSITION AND ATTITUDE

S/C SUBSYSTEM NAV. GUID., STABILIZATION AND CONTROL
GROUP KEY 2.1.1

BASIC FUNCTION MAINTAIN S/C FUNCTION
FUNCTIONAL REQUIREMENT CONTROL SPACECRAFT ORBIT POSITIO
N, ATTITUDE AND MOTION

** EQUIPMENT/EXPERIMENT NO. 1 ELECTRONIC SYSTEMS

S/C AREAS COMMUNICATIONS
EXTRA VEHICULAR

*** WASTE SOURCE NO. 1 ELECTRONICS SYSTEM

DOCUMENT NO. 2.1.1.1.1*

REFERENCE NO. 1 .. TECHNICAL DESCRIPTION H-429 GUIDANCE AND
NAVIGATION SYSTEM, HONEYWELL AEROSPACE
DIVISION, ST. PETERSBURG, FLORIDA.

REFERENCE NO. 2 .. LEAR SIEGLER PUBLICATIONS NO. GRP-011-05
69-IIB, INERTIAL NAVIGATION ELEMENT, F-1
5 AVIONICS SYSTEM.

REFERENCE NO. 3 .. FAIRCHILD HILLER ATS-F&G PROPOSAL.

REFERENCE NO. 4 .. BENDIX CORPORATION NAVIGATION & CONTROL
DIVISION, OAO STAR TRACKER PROGRAM N69-3
9788, NASA CR10695.

***** WASTE ITEM NO. 1 FAILED POWER SUPPLY PACKAGE

STATE SOLID

DENSITY 77.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. CU, FE, AL, SI

COMPOSITION

GENERATION DATA ...

10 YR. TOTAL

QUANTITY (LBS)

30.60

DAILY RATE

0.00

UNIT WEIGHT

25.00

RECLAMATION ACTION .. REPAIR

11/30/70

RUN NO. ** 2 **

PAGE 104

S/C SUBSYSTEM NAV. GUID., STABILIZATION AND CONTROL
GROUP KEY 2.1.1

** EQUIPMENT/EXPERIMENT NO. 1 ELECTRONIC SYSTEMS

*** WASTE SOURCE NO. 1 ELECTRONICS SYSTEM

***** WASTE ITEM NO. 2 FAILED COMPUTER

STATE SOLID

DENSITY 52.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. CU, FE, AL, SI

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 226.80

DAILY RATE 0.00

UNIT WEIGHT 35.00

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 3 FAILED SENSOR MOUNTING BLOCK

STATE SOLID

DENSITY 80.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. CU, FE, AL, SI

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 115.60

DAILY RATE 0.00

UNIT WEIGHT 40.00

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 4 FAILED PLATFORM ELECTRONICS

STATE SOLID

DENSITY 52.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. CU, FE, AL, SI

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 14.90

DAILY RATE 0.00

UNIT WEIGHT 10.00

RECLAMATION ACTION .. REPAIR

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM NAV. GUID., STABILIZATION AND CONTROL
GROUP KEY 2.1.1

** EQUIPMENT/EXPERIMENT NO. 1 ELECTRONIC SYSTEMS

*** WASTE SOURCE NO. 1 ELECTRONICS SYSTEM

***** WASTE ITEM NO. 5 FAILED STAR TRACKER MECHANICAL ASSEMBLY

STATE SOLID

DENSITY 44.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. CU, FE, AL, SI

COMPOSITION SIC2

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 48.00

DAILY RATE 0.00

UNIT WEIGHT 25.00

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 6 FAILED STAR TRACKER ELECTRONICS

STATE SOLID

DENSITY 42.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. CU, FE, AL, SI

COMPOSITION --

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 13.40

DAILY RATE 0.00

UNIT WEIGHT 14.00

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 7 FAILED HORIZON SCANNER MECHANICAL ASSY

STATE SOLID

DENSITY 44.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. CU, FE, AL, SI

COMPOSITION SIC2

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 48.00

DAILY RATE 0.00

UNIT WEIGHT 25.00

RECLAMATION ACTION .. REPAIR

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM NAV. GUID., STABILIZATION AND CONTROL
GROUP KEY 2.1.1

** EQUIPMENT/EXPERIMENT NO. 1 ELECTRONIC SYSTEMS

*** WASTE SOURCE NO. 1 ELECTRONICS SYSTEM

*** WASTE ITEM NO. 8 FAILED HORIZON SCANNER ELECTRONICS

STATE SOLID

DENSITY 77.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. CU, FE, AL, SI

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 30.60

DAILY RATE 0.00

UNIT WEIGHT 25.00

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 9 PACKAGING FOR REPLACEMENT PARTS

STATE SOLID

DENSITY 5.00 LBS/CU. FT.

ATTRIBUTES PLASTIC

ELEMENTS PRESENT ..

COMPOSITION PLASTIC SPONGE, SHEETING

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 0.00

DAILY RATE 0.00

UNIT WEIGHT 0.00

RECLAMATION ACTION .. REUSE AS IS

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM NAV. GUID., STABILIZATION AND CONTROL
GROUP KEY 2.1.1

** EQUIPMENT/EXPERIMENT NO. 2 MECHANICAL SYSTEMS

S/C AREAS CONTROL
EQUIPMENT
EXTRA VEHICULAR

**** WASTE SOURCE NO. 1 CONTROL MOMENT GYROS

DOCUMENT NO. 2.1.1.2.1

REFERENCE NO. 1 .. NASA, SPACE STATION RFP.

REFERENCE NO. 2 .. MIL-HDBK-217A (DEC. 1, 1965) RELIABILITY
STRESS AND FAILURE RATE DATA FOR ELECTR
ONIC EQUIPMENT.

***** WASTE ITEM NO. 1 FAILED CMG GYRO

STATE SOLID
DENSITY 250.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. FE
COMPOSITION

GENERATION DATA ...	QUANTITY (LBS)
10 YR. TOTAL	16.40
DAILY RATE	0.00
UNIT WEIGHT	6.00

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 2 FAILED CMG GIMBAL BEARING

STATE SOLID
DENSITY 250.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. FE
COMPOSITION

GENERATION DATA ...	QUANTITY (LBS)
10 YR. TOTAL	8.20
DAILY RATE	0.00
UNIT WEIGHT	6.00

RECLAMATION ACTION .. REPAIR

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM NAV. GUID., STABILIZATION AND CONTROL
GROUP KEY 2.1.1

** EQUIPMENT/EXPERIMENT NO. 2 MECHANICAL SYSTEMS

*** WASTE SOURCE NO. 1 CONTROL MOMENT GYROS

***** WASTE ITEM NO. 3 FAILED CMG GIMBAL MOTOR

STATE SOLID

DENSITY 200.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. CU, FE

COMPOSITION

GENERATION DATA ...

QUANTITY (LBS)

10 YR. TOTAL 93.50

DAILY RATE 0.00

UNIT WEIGHT 50.00

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 4 FAILED CMG GIMBAL ANGLE PICK-OFF

STATE SOLID

DENSITY 200.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. CU, FE

COMPOSITION

GENERATION DATA ...

QUANTITY (LBS)

10 YR. TOTAL 1.80

DAILY RATE 0.00

UNIT WEIGHT 1.00

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 5 FAILED CMG SERVO ELECTRONICS

STATE SOLID

DENSITY 52.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL, CU, FE, SI

COMPOSITION

GENERATION DATA ...

QUANTITY (LBS)

10 YR. TOTAL 43.40

DAILY RATE 0.00

UNIT WEIGHT 15.00

RECLAMATION ACTION .. REPAIR

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM NAV. GUID., STABILIZATION AND CONTROL
GROUP KEY 2.1.1

** EQUIPMENT/EXPERIMENT NO. 2 MECHANICAL SYSTEMS

*** WASTE SOURCE NO. 1 CONTROL MOMENT GYRO

*** WASTE ITEM NO. 6 FAILED CMG GIMBAL ANGLE SERVO MOTOR

STATE SOLID

DENSITY 200.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. CU, FE

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 46.80

DAILY RATE 0.00

UNIT WEIGHT 25.00

RECLAMATION ACTION .. REPAIR

*** WASTE ITEM NO. 7 FAILED CMG POWER SUPPLY

STATE SOLID

DENSITY 77.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL, CU, FE, SI

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 18.50

DAILY RATE 0.00

UNIT WEIGHT 15.00

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 8 PACKAGING FOR REPLACEMENT PARTS

STATE SOLID

DENSITY 5.00 LBS/CU. FT.

ATTRIBUTES PLASTIC

ELEMENTS PRESENT ..

COMPOSITION PLASTIC SPONGE, SHEETING

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 0.00

DAILY RATE 0.00

UNIT WEIGHT 0.00

RECLAMATION ACTION .. REUSE AS IS

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RUN NO. ** 2 **

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S/C SUBSYSTEM NAV. GUID., STABILIZATION AND CONTROL
GROUP KEY 2.1.1

** EQUIPMENT/EXPERIMENT NO. 2 MECHANICAL SYSTEMS

*** WASTE SOURCE NO. 2 REACTION JET CONTROL, MONO-PROPELLANT

DOCUMENT NO. 2.1.1.2.2

REFERENCE NO. 1 .. AUXILIARY PROPULSION SURVEY, AFSC-USAF,
AF APL-TR-68-67 3 PARTS.

REFERENCE NO. 2 .. FAILURE RATE DATA HANDBOOK, TRI-SERVICE
AND NASA-SP63-470.

REFERENCE NO. 3 .. STUDY OF SPACE STATION PROPULSION SYSTEM
RESUPPLY AND REPAIR. VICTOR A. DESCAMP
- MARTIN MARIETTA CORPORATION, DENVER, C
OLORADO. JAN. 1970. N70-22830, NASA CRIO

***** WASTE ITEM NO. 1 FAILED PRESSURANT TANK

STATE SOLID

DENSITY 10.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. TITANIUM

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 505.00

DAILY RATE 0.00

UNIT WEIGHT 250.00

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 2 FAILED FILL VALVE & PRESSURE RELIEF

STATE SOLID

DENSITY 260.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. FE, CU

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 7.90

DAILY RATE 0.00

UNIT WEIGHT 3.00

RECLAMATION ACTION .. REPAIR

** MANNED SPACECRAFT WASTE GENERATION DATA **

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S/C SUBSYSTEM NAV. GUID., STABILIZATION AND CONTROL
GROUP KEY 2.1.1

** EQUIPMENT/EXPERIMENT NO. 2 MECHANICAL SYSTEMS

*** WASTE SOURCE NO. 2 REACTION JET CONTROL, MCNO-PROPELLANT

***** WASTE ITEM NO. 3 FAILED N2 START VALVE

STATE SOLID

DENSITY 260.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. FE, CU

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 7.00

DAILY RATE 0.00

UNIT WEIGHT 2.00

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 4 FAILED FILTER

STATE SOLID

DENSITY 170.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT ..

COMPOSITION STAINLESS STEEL

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 8.76

DAILY RATE 0.00

UNIT WEIGHT 1.00

RECLAMATION ACTION .. CLEAN OR REPLACE

***** WASTE ITEM NO. 5 FAILED PRESSURE REGULATOR

STATE SOLID

DENSITY 260.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. FE, CU

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 26.30

DAILY RATE 0.00

UNIT WEIGHT 5.00

RECLAMATION ACTION .. REPAIR

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM NAV. GUID., STABILIZATION AND CONTROL
GROUP KEY 2.1.1

** EQUIPMENT/EXPERIMENT NO. 2 MECHANICAL SYSTEMS
**** WASTE SOURCE NO. 2 REACTION JET CONTROL, MONO-PROPELLANT

***** WASTE ITEM NO. 6 FAILED CHECK VALVE
STATE SOLID
DENSITY 260.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. FE, CU
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 0.26
DAILY RATE 0.00
UNIT WEIGHT 1.00
RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 7 FAILED BLADDER
STATE SOLID
DENSITY 50.00 LBS/CU. FT.
ATTRIBUTES PLASTIC
ELEMENTS PRESENT ..
COMPOSITION PLASTIC
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 35.00
DAILY RATE 0.00
UNIT WEIGHT 50.00
RECLAMATION ACTION .. REPAIR OR REPLACE

***** WASTE ITEM NO. 8 FAILED PROPELLANT STORAGE TANK
STATE SOLID
DENSITY 10.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. TITANIUM
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 2020.00
DAILY RATE 0.00
UNIT WEIGHT 1000.00
RECLAMATION ACTION .. REPAIR

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RUN NO. ** 2 **

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S/C SUBSYSTEM NAV. GUID., STABILIZATION AND CONTROL
GROUP KEY 2.1.1

** EQUIPMENT/EXPERIMENT NO. 2MECHANICAL SYSTEMS
*** WASTE SOURCE NO. 2 REACTION JET CONTROL, MONO-PROPELLANT
*** *****

***** WASTE ITEM NO. 9 FAILED PROPELLANT FILLED VALVE
STATE SOLID
DENSITY 260.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. FE, CU
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 0.52
DAILY RATE 0.00
UNIT WEIGHT 2.00
RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 10 FAILED FUEL START VALVE
STATE SOLID
DENSITY 260.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. FE, CU
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 7.00
DAILY RATE 0.00
UNIT WEIGHT 2.00
RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 11 FAILED FLOW CONTROL VALVE
STATE SOLID
DENSITY 260.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. FE, CU
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 378.00
DAILY RATE 0.00
UNIT WEIGHT 3.00
RECLAMATION ACTION .. REPAIR

S/C SUBSYSTEM NAV. GUID., STABILIZATION AND CONTROL
GROUP KEY 2.1.1

** EQUIPMENT/EXPERIMENT NO. 2 MECHANICAL SYSTEMS
*** WASTE SOURCE NO. 2 REACTION JET CONTROL, MCNO-PROPELLANT
*** *****

***** WASTE ITEM NO. 12 FAILED CATALYST BED
STATE SOLID
DENSITY 350.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. IRIDIUM
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 1840.00
DAILY RATE 0.00
UNIT WEIGHT 35.00
RECLAMATION ACTION .. CHEMICALLY TREAT

***** WASTE ITEM NO. 13 FAILED NOZZLES
STATE SOLID
DENSITY 94.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. FE, TITANIUM
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 200.00
DAILY RATE 0.00
UNIT WEIGHT 5.00
RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 14 PACKAGING FOR REPLACEMENT PARTS
STATE SOLID
DENSITY 5.00 LBS/CU. FT.
ATTRIBUTES PLASTIC
ELEMENTS PRESENT ..
COMPOSITION PLASTIC SPONGE SHEETING
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 0.00
DAILY RATE 0.00
UNIT WEIGHT 0.00
RECLAMATION ACTION .. REUSE AS IS

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM NAV. GUID., STABILIZATION AND CONTROL
GROUP KEY 2.1.1

** EQUIPMENT/EXPERIMENT NO. 2 MECHANICAL SYSTEMS

**** WASTE SOURCE NO. 3 REACTION JET CONTROL, BI-PROPELLANT

DOCUMENT NO. 2.1.1.2.3

REFERENCE NO. 1 .. AUXILIARY PROPULSION SURVEY, ASFC-USAF,
AF APL-TR-68-67 3 PARTS.

REFERENCE NO. 2 .. FAILURE RATE DATA HANDBOOK TRI-SERVICE A
ND NASA SP 63-470.

REFERENCE NO. 3 .. STUDY OF SPACE STATION PROPULSION SYSTEM
RESUPPLY AND REPAIR. VICTOR A. DESCAMP
- MARTIN MARIETTA CORPORATION, DENVER, C
OLCRADO JAN. 1970. N70-2283, NASA CP1025

***** WASTE ITEM NO. 1 FAILED PRESSURANT TANK

STATE SOLID

DENSITY 10.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. TITANIUM

COMPOSITION

GENERATION DATA ...

QUANTITY (LBS)

- 10 YR. TOTAL 507.00

DAILY RATE 0.00

UNIT WEIGHT 250.00

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 2 FAILED FILL VALVE

STATE SOLID

DENSITY 260.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. FE, CU

COMPOSITION

GENERATION DATA ...

QUANTITY (LBS)

- 10 YR. TOTAL 7.90

DAILY RATE 0.00

UNIT WEIGHT 3.00

RECLAMATION ACTION .. REPAIR

S/C SUBSYSTEM NAV. GUID., STABILIZATION AND CONTROL
GROUP KEY 2.1.1

** EQUIPMENT/EXPERIMENT NO. 2 MECHANICAL SYSTEMS

*** WASTE SOURCE NO. 3 REACTION JET CONTROL, BI-PROPELLANT

*** WASTE ITEM NO. 3 VALVE, PRESSURANT START

STATE SOLID

DENSITY 260.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. FE, CU

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 7.00

DAILY RATE 0.00

UNIT WEIGHT 2.00

RECLAMATION ACTION ..

*** WASTE ITEM NO. 4 FAILED PRESSURE REGULATOR

STATE SOLID

DENSITY 260.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. FE, CU

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 52.60

DAILY RATE 0.00

UNIT WEIGHT 5.00

RECLAMATION ACTION .. REPAIR

*** WASTE ITEM NO. 5 FAILED RELIEF VALVE

STATE SOLID

DENSITY 260.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. FE, CU

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 15.80

DAILY RATE 0.00

UNIT WEIGHT 3.00

RECLAMATION ACTION .. REPAIR

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S/C SUBSYSTEM NAV. GUID., STABILIZATION AND CONTROL
GROUP KEY 2.1.1

** EQUIPMENT/EXPERIMENT NO. 2MECHANICAL SYSTEMS
*** WASTE SOURCE NO. 3 REACTION JET CONTROL, BI-PROPELLANT

***** WASTE ITEM NO. 6 FAILED CHECK VALVE
STATE SOLID
DENSITY 260.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. FE, CU
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 0.52
DAILY RATE 0.00
UNIT WEIGHT 1.00
RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 7 FAILED OXIDIZER TANK
STATE SOLID
DENSITY 10.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. TITANIUM
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 1010.00
DAILY RATE 0.00
UNIT WEIGHT 500.00
RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 8 FAILED OXIDIZER TANK BLADDER
STATE SOLID
DENSITY 50.00 LBS/CU. FT.
ATTRIBUTES PLASTIC
ELEMENTS PRESENT ..
COMPOSITION PLASTIC
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 17.50
DAILY RATE 0.00
UNIT WEIGHT 25.00
RECLAMATION ACTION .. REPAIR OR REPLACE

** MANNED SPACECRAFT WASTE GENERATION DATA **

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S/C SUBSYSTEM NAV. GUID., STABILIZATION AND CONTROL
GROUP KEY 2.1.1

** EQUIPMENT/EXPERIMENT NO. 2 MECHANICAL SYSTEMS

*** WASTE SOURCE NO. 3 REACTION JET CONTROL, BI-PROPELLANT

*** WASTE ITEM NO. 9 FAILED FUEL TANK

STATE SOLID

DENSITY 10.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. TITANIUM

COMPOSITION ..

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 1010.00

DAILY RATE 0.00

UNIT WEIGHT 500.00

RECLAMATION ACTION .. REPAIR

*** WASTE ITEM NO. 10 FAILED FUEL TANK BLADDER

STATE SOLID

DENSITY 50.00 LBS/CU. FT.

ATTRIBUTES PLASTIC

ELEMENTS PRESENT ..

COMPOSITION PLASTIC

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 17.50

DAILY RATE 0.00

UNIT WEIGHT 25.00

RECLAMATION ACTION .. REPAIR OR REPLACE

*** WASTE ITEM NO. 11 FAILED PURGE AND FILL VALVE

STATE SOLID

DENSITY 260.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. FE, CU

COMPOSITION ..

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 1.04

DAILY RATE 0.00

UNIT WEIGHT 2.00

RECLAMATION ACTION .. REPAIR

** MANNED SPACECRAFT WASTE GENERATION DATA **

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RUN NO. ** 2 **

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S/C SUBSYSTEM NAV. GUID., STABILIZATION AND CONTROL
GROUP KEY 2.1.1

** EQUIPMENT/EXPERIMENT NO. 2 MECHANICAL SYSTEMS

*** WASTE SOURCE NO. 3 REACTION JET CONTROL, BI-PROPELLANT

***** WASTE ITEM NO. 12 FAILED ISOLATION VALVE

STATE SOLID

DENSITY 260.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. FE, CU

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 12.48

DAILY RATE 0.00

UNIT WEIGHT 2.00

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 13 FAILED BI-PROPELLANT VALVE

STATE SOLID

DENSITY 260.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. FE, CU

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 504.00

DAILY RATE 0.00

UNIT WEIGHT 4.00

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 14 FAILED THRUSTER NOZZLES

STATE SOLID

DENSITY 94.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. FE, TITANIUM

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 279.70

DAILY RATE 0.00

UNIT WEIGHT 7.00

RECLAMATION ACTION ..

** MANNED SPACECRAFT WASTE GENERATION DATA **

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RUN NO. ** 2 **

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S/C SUBSYSTEM NAV. GUID., STABILIZATION AND CONTROL
GROUP KEY 2.1.1

** EQUIPMENT/EXPERIMENT NO. 2 MECHANICAL SYSTEMS
*** WASTE SOURCE NO. 3 REACTION JET CONTROL, BI-PROPELLANT
*** ~~~~~

*** ** WASTE ITEM NO. 15 PACKAGING OF REPLACEMENT PARTS
STATE SOLID
DENSITY 5.00 LBS/CU. FT.
ATTRIBUTES PLASTIC
ELEMENTS PRESENT ..
COMPOSITION PLASTIC SPONGE, SHEETING
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 0.00
DAILY RATE 0.00
UNIT WEIGHT 0.00
RECLAMATION ACTION .. REUSE AS IS

** MANNED SPACECRAFT WASTE GENERATION DATA **

PROVIDE FOR ELECTRIC AND THERMAL POWER

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM ELECTRIC PCWER

GROUP KEY 2.2.1

BASIC FUNCTION MAINTAIN S/C FUNCTION
FUNCTIONAL REQUIREMENT PROVIDE ELECTRICAL AND THERMAL P
OWER

** EQUIPMENT/EXPERIMENT NO. 1 SOLAR ARRAYS

S/C AREAS EXTRA VEHICULAR

**** WASTE SOURCE NO. 1 SOLAR ARRAYS

DOCUMENT NO. 2.2.1.1.1*

REFERENCE NO. 1 .. NASA REQUEST FOR PROPOSAL FOR PHASE B DE
FINITION OF A SPACE STATION PROGRAM.

REFERENCE NO. 2 .. NORTH AMERICAN ROCKWELL SPACE STATION PR
OGRAM PHASE B DEFINITION, TECHNOLOGY REQU
IREMENTS REVIEW, PDS70-217, 25 MARCH 1970.

***** WASTE ITEM NO. 1 FAILED SOLAR ARRAYS

STATE SOLID

DENSITY 0.12 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL, CU, FE

COMPOSITION PLASTICS, SI-SEMICONDUCTOR

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 24587.00

DAILY RATE 0.00

UNIT WEIGHT 0.12

RECLAMATION ACTION .. REPLACE

***** WASTE ITEM NO. 2 FAILED REGULATOR

STATE SOLID

DENSITY 77.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL, CU, FE

COMPOSITION PLASTICS, SI-SEMICONDUCTOR

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 55.00

DAILY RATE 0.00

UNIT WEIGHT 15.00

RECLAMATION ACTION .. REPAIR

S/C SUBSYSTEM ELECTRIC POWER
GROUP KEY 2.2.1

** EQUIPMENT/EXPERIMENT NO. 1 SOLAR ARRAYS

*** WASTE SOURCE NO. 1 SOLAR ARRAYS

***** WASTE ITEM NO. 3 FAILED INVERTER

STATE SOLID

DENSITY 77.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL,CU,FE

COMPOSITION PLASTICS,SI-SEMICONDUCTOR

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 131.00

DAILY RATE 0.00

UNIT WEIGHT 25.00

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 4 FAILED VOLTAGE REFERENCE

STATE SOLID

DENSITY 52.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL,CU,FE

COMPOSITION PLASTICS,SI-SEMICONDUCTOR

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 0.90

DAILY RATE 0.00

UNIT WEIGHT 2.50

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 5 FAILED SYNCHRONIZER CLOCK

STATE SOLID

DENSITY 52.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL,CU,FE

COMPOSITION PLASTICS,SI-SEMICONDUCTOR

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 0.90

DAILY RATE 0.00

UNIT WEIGHT 2.50

RECLAMATION ACTION .. REPAIR

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S/C SUBSYSTEM ELECTRIC POWER
GROUP KEY 2.2.1

** EQUIPMENT/EXPERIMENT NO. 1 SOLAR ARRAYS

*** WASTE SOURCE NO. 1 SOLAR ARRAYS

***** WASTE ITEM NO. 6 FAILED CIRCUIT BREAKER

STATE SOLID

DENSITY 77.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. CU,FE,AL

COMPOSITION PLASTIC

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 0.60

DAILY RATE 0.00

UNIT WEIGHT 1.00

RECLAMATION ACTION .. REPLACE

***** WASTE ITEM NO. 7 FAILED POWER CONTACTOR

STATE SOLID

DENSITY 77.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. CU,FE,AL

COMPOSITION PLASTIC

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 0.70

DAILY RATE 0.00

UNIT WEIGHT 1.00

RECLAMATION ACTION .. REPLACE

***** WASTE ITEM NO. 8 FAILED MONITOR METER(DC)

STATE SOLID

DENSITY 77.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. CU,FE,AL,SIO2

COMPOSITION PLASTIC

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 0.09

DAILY RATE 0.00

UNIT WEIGHT 0.50

RECLAMATION ACTION .. REPAIR

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S/C SUBSYSTEM ELECTRIC POWER
GROUP KEY 2.2.1

** EQUIPMENT/EXPERIMENT NO. 1 SOLAR ARRAYS

*** WASTE SOURCE NO. 1 SOLAR ARRAYS

***** WASTE ITEM NO. 9 FAILED MONITOR METER(AC)

STATE SOLID

DENSITY 77.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. CU,FE,AL,SIO2

COMPOSITION PLASTIC

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 0.09

DAILY RATE 0.00

UNIT WEIGHT 0.50

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 10 FAILED MONITOR METER SWITCHES

STATE SOLID

DENSITY 77.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. CU,FE,AL

COMPOSITION PLASTICS

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 0.18

DAILY RATE 0.00

UNIT WEIGHT 0.25

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 11 FAILED REMOTE CONTROL SWITCHES

STATE SOLID

DENSITY 77.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. CU,FE

COMPOSITION PLASTICS

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 0.35

DAILY RATE 0.00

UNIT WEIGHT 0.25

RECLAMATION ACTION .. REPLACE 0.50

** MANNED SPACECRAFT WASTE GENERATION DATA **

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S/C SUBSYSTEM ELECTRIC POWER
GROUP KEY 2.2.1

** EQUIPMENT/EXPERIMENT NO. 1 SOLAR ARRAYS
**** WASTE SOURCE NO. 1 SOLAR ARRAYS

***** WASTE ITEM NO. 12 FAILED PRIMARY SYSTEM WIRING
STATE SOLID
DENSITY 14.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. AL
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 0.00
DAILY RATE 0.00
UNIT WEIGHT 0.00
RECLAMATION ACTION .. REPLACE

***** WASTE ITEM NO. 13 PACKAGING FOR REPLACEMENT PARTS
STATE SOLID
DENSITY 5.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT ..
COMPOSITION PLASTIC SPONGE AND SHEETING
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 0.00
DAILY RATE 0.00
UNIT WEIGHT 0.00
RECLAMATION ACTION .. REUSE AS IS

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM ELECTRIC POWER

GROUP KEY 2.2.1

** EQUIPMENT/EXPERIMENT NO. 2 RADIOISOTOPE BRAYTON CYCLE

S/C AREAS EXTRA VEHICULAR ,

*** WASTE SOURCE NO. 1 RADIOISOTOPE BRAYTON CYCLE

DOCUMENT NO. 2.2.1.2.1*

REFERENCE NO. 1 .. NASA REQUEST FOR PROPOSAL FOR PHASE B DEFINITION OF A SPACE STATION PROGRAM.

REFERENCE NO. 2 .. NORTH AMERICAN ROCKWELL SPACE STATION PROGRAM PHASE B DEFINITION TECHNOLOGY REQUIREMENTS REVIEW, PDS70-217, 25 MARCH 1970.

REFERENCE NO. 3 .. INTEGRATED MANNED INTERPLANETARY SPACECRAFT CONCEPT DEFINITION FINAL REPORT SYSTEM DEFINITION D2-113544-4, PREPARED FOR NASA LANGLEY BY BOEING AEROSPACE GROUP, JAMES

REFERENCE NO. 4 .. SUMMARY OF ELECTRICAL COMPONENT DEVELOPMENT FOR A 400 HERTZ BRAYTON ENERGY CONVERSION SYSTEM CORCORAN & YEAGER, LEWIS RESEARCH CENTER, NASA TECHNICAL NOTE NASA TN

REFERENCE NO. 5 .. SPACE STATION SUPPORTING RESEARCH AND TECHNOLOGY INITIAL BRIEFING, MCDONNELL DOUGLAS ASTRONAUTICS COMPANY, 24 MARCH 1970

***** WASTE ITEM NO. 1 FAILED FUEL BLOCK

STATE SOLID

DENSITY 224.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT ..

COMPOSITION PU-238

GENERATION DATA ...

QUANTITY (LBS)

10 YR. TOTAL 0.00

DAILY RATE 0.00

UNIT WEIGHT 2500.00

RECLAMATION ACTION .. NONE

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM ELECTRIC POWER
GROUP KEY 2.2.1

** EQUIPMENT/EXPERIMENT NO. 2RADIOISOTOPE BRAYTON CYCLE

**** WASTE SOURCE NO. 1 RADIOISOTOPE BRAYTON CYCLE

***** WASTE ITEM NO. 2 FAILED SHIELDING

STATE SOLID

DENSITY 51.20 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. URANIUM,LITHIUM HYDRIDE

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 2500.00

DAILY RATE 0.00

UNIT WEIGHT 2500.00

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 3 FAILED PCS

STATE SOLID

DENSITY 16.10 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. FE,CU

COMPOSITION AL INSULATION

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 24360.00

DAILY RATE 0.00

UNIT WEIGHT 4200.00

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 4 FAILED RADIATOR

STATE SOLID

DENSITY 11.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL

COMPOSITION SIC2 INSULATION

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 207.00

DAILY RATE 0.00

UNIT WEIGHT 2300.00

RECLAMATION ACTION .. REPAIR

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM ELECTRIC POWER
GROUP KEY 2.2.1

** EQUIPMENT/EXPERIMENT NO. 2 RADIOISOTOPE BRAYTON CYCLE
*** WASTE SOURCE NO. 1 RADIOISOTOPE BRAYTON CYCLE

***** WASTE ITEM NO. 5 FAILED PUMP/MOTOR
STATE SOLID
DENSITY 200.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. FE, CU
COMPOSITION AL INSULATION
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 75.00
DAILY RATE 0.00
UNIT WEIGHT 25.00
RECLAMATION ACTION .. REPAIR

/ ***** WASTE ITEM NO. 6 PACKAGING FOR REPLACEMENT PARTS
STATE SOLID
DENSITY -5.00 LBS/CU. FT.
ATTRIBUTES PLASTIC
ELEMENTS PRESENT ..
COMPOSITION PLASTIC SPONGE AND SHEETING
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 0.00
DAILY RATE 0.00
UNIT WEIGHT 0.00
RECLAMATION ACTION .. REUSE AS IS

***** WASTE ITEM NO. 7 FAILED FREQUENCY DISCRIMINATOR
STATE SOLID
DENSITY 52.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. AL, CU, FE, NI
COMPOSITION SI-SEMI COND. PLASTICS
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 18.90
DAILY RATE 0.00
UNIT WEIGHT 2.00
RECLAMATION ACTION .. REPAIR

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RUN NO. ** 2 **

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S/C SUBSYSTEM ELECTRIC POWER
GROUP KEY 2.2.1

** EQUIPMENT/EXPERIMENT NO. 2RADIOISOTOPE BRAYTON CYCLE

*** WASTE SOURCE NO. 1 RADICISOTOPE BRAYTON CYCLE

***** WASTE ITEM NO. 8 FAILED MAGNETIC PREAMPLIFIER

STATE SOLID
DENSITY 80.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. AL,CU,FE,NI
COMPOSITION SI-SEMI COND.PLASTICS
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 0.37
DAILY RATE 0.00
UNIT WEIGHT 2.00
RECLAMATION ACTION .. REPAIR

**** * WASTE ITEM NO. 9 FAILED MAGNETIC AMPLIFIER

STATE SOLID
DENSITY 80.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. AL,CU,FE,NI
COMPOSITION SI-SEMI COND.PLASTICS
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 2.80
DAILY RATE 0.00
UNIT WEIGHT 3.00
RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 10 FAILED SILICON CONTROLLED RECTIFIERS

STATE SOLID
DENSITY 77.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. AL,CU.
COMPOSITION SI-SEMI COND.
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 1.18
DAILY RATE 0.00
UNIT WEIGHT 0.25
RECLAMATION ACTION .. REPAIR

S/C SUBSYSTEM ELECTRIC POWER
GROUP KEY 2.2.1

** EQUIPMENT/EXPERIMENT NO. 2RADIOISOTOPE BRAYTON CYCLE
*** WASTE SOURCE NO. 1 RADIOISOTOPE BRAYTON CYCLE
** ** ** ** **

*** ** WASTE ITEM NO. 11 FAILED PARASITIC LOAD BANK
STATE SOLID
DENSITY 77.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. FE, CU
COMPOSITION NICHROME CERAMIC
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 1.58
DAILY RATE 0.00
UNIT WEIGHT 60.00
RECLAMATION ACTION .. REPAIR

*** ** WASTE ITEM NO. 12 FAILED VOLTAGE SENSING CIRCUIT
STATE SOLID
DENSITY 52.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. AL, CU, FE
COMPOSITION SI-SEMI COND. PLASTICS
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 1.50
DAILY RATE 0.00
UNIT WEIGHT 2.00
RECLAMATION ACTION .. REPAIR

*** ** WASTE ITEM NO. 13 FAILED VOLTAGE REFERENCE
STATE SOLID
DENSITY 52.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. AL, CU, FE
COMPOSITION SI-SEMI COND. PLASTICS
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 1.50
DAILY RATE 0.00
UNIT WEIGHT 2.00
RECLAMATION ACTION .. REPAIR

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RUN NO. ** 2 **

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S/C SUBSYSTEM ELECTRIC POWER
GROUP KEY 2.2.1

** EQUIPMENT/EXPERIMENT NO. 2RADIOISOTOPE BRAYTON CYCLE

*** WASTE SOURCE NO. 1 RADIOISOTOPE BRAYTON CYCLE

***** WASTE ITEM NO. 14 FAILED TRANSISTER AMPLIFIER

STATE SOLID

DENSITY 52.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL,CU,FE

COMPOSITION SI-SEMI COND.PLASTICS

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 1.10

DAILY RATE 0.00

UNIT WEIGHT 1.50

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 15 FAILED MAGNETIC AMPLIFIER

STATE SOLID

DENSITY 80.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL,CU,FE,NI

COMPOSITION SI-SEMI COND.PLASTICS

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 1.50

DAILY RATE 0.00

UNIT WEIGHT 3.00

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 16 FAILED FEED BACK NETWORK

STATE SOLID

DENSITY 52.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL,CU

COMPOSITION NICHROME,CERAMICS,PLASTICS

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 0.13

DAILY RATE 0.00

UNIT WEIGHT 0.25

RECLAMATION ACTION .. REPAIR

** MANNED SPACECRAFT WASTE GENERATION DATA **

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RUN NO. ** 2 **

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S/C SUBSYSTEM ELECTRIC PCWER
GROUP KEY 2.2.1

** EQUIPMENT/EXPERIMENT NO. 2 RADIOISOTOPE BRAYTON CYCLE

*** WASTE SOURCE NO. 1 RADIOISOTOPE BRAYTON CYCLE

***~** WASTE ITEM NO. 17 FAILED FULL WAVE RECTIFIER

STATE SOLID

DENSITY 77.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL,CU,FE

COMPOSITION SI-SEMI COND.CERAMICS

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 1.60

DAILY RATE 0.00

UNIT WEIGHT 1.50

RECLAMATION ACTION .. REPAIR

***~** WASTE ITEM NO. 18 FAILED SATURATING CURRENT POTENTIAL TRAN

STATE SOLID

DENSITY 80.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL,CU,FE

COMPOSITION PLASTICS

GENERATION DATA ... - QUANTITY (LBS)

10 YR. TOTAL 3.16

DAILY RATE 0.00

UNIT WEIGHT 40.00

RECLAMATION ACTION .. REPLACE

***~** WASTE ITEM NO. 19 FAILED CIRCUIT BREAKERS

STATE SOLID

DENSITY 77.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL,CU,FE

COMPOSITION PLASTICS

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 0.35

DAILY RATE 0.00

UNIT WEIGHT 1.00

RECLAMATION ACTION .. REPLACE

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RUN NO. ** 2 **

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S/C SUBSYSTEM ELECTRIC POWER

GROUP KEY 2.2.1

** EQUIPMENT/EXPERIMENT NO. 2RADIOISOTOPE BRAYTON CYCLE

*** WASTE SOURCE NO. 1 RADIOISOTOPE BRAYTON CYCLE

***** WASTE ITEM NO. 20 FAILED POWER CONTACTOR

STATE SOLID

DENSITY 77.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL,CU,FE

COMPOSITION PLASTICS

GENERATION DATA ...

QUANTITY (LBS)

10 YR. TOTAL

0.35

DAILY RATE

0.00

UNIT WEIGHT

1.00

RECLAMATION ACTION .. REPLACE

***** WASTE ITEM NO. 21 FAILED MONITOR METER(DC)

STATE SOLID

DENSITY 77.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL,CU,FE,SI O2

COMPOSITION PLASTIC

GENERATION DATA ...

QUANTITY (LBS)

10 YR. TOTAL

0.04

DAILY RATE

0.00

UNIT WEIGHT

0.50

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 22 FAILED MONITOR METER(AC)

STATE SOLID

DENSITY 77.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL,CU,FE,SI O2

COMPOSITION PLASTIC

GENERATION DATA ...

QUANTITY (LBS)

10 YR. TOTAL

0.04

DAILY RATE

0.00

UNIT WEIGHT

0.50

RECLAMATION ACTION .. REPAIR

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RUN NC. ** 2 **

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S/C SUBSYSTEM ELECTRIC POWER
GROUP KEY 2.2.1

** EQUIPMENT/EXPERIMENT NO. 2RADIOISOTOPE BRAYTON CYCLE
*** WASTE SOURCE NO. 1 RADIOISOTOPE BRAYTON CYCLE

***** WASTE ITEM NO. 23 FAILED REMOTE CONTROL SWITCHES

STATE SOLID
DENSITY 77.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. AL,CU,FE,SI O2
COMPOSITION PLASTIC
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 0.17
DAILY RATE 0.00
UNIT WEIGHT 0.25

RECLAMATION ACTION .. REPLACE

**** ** WASTE ITEM NO. 24 PACKAGING FOR REPLACEMENT PARTS

STATE SOLID
DENSITY 5.00 LBS/CU. FT.
ATTRIBUTES PLASTIC
ELEMENTS PRESENT ..
COMPOSITION PLASTIC SPONGE AND SHEETING
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 0.00
DAILY RATE 0.00
UNIT WEIGHT 0.00

RECLAMATION ACTION .. REUSE AS IS

S/C SUBSYSTEM REGULATE POWER

GROUP KEY 2.2.2

BASIC FUNCTION MAINTAIN S/C FUNCTION

FUNCTIONAL REQUIREMENT PROVIDE ELECTRICAL AND THERMAL P
OWER

** EQUIPMENT/EXPERIMENT NO. 1 POWER CONDITIONING SYSTEM

S/C AREAS POWER

*** WASTE SOURCE NO. 1 POWER CONDITIONING SYSTEM

DOCUMENT NO. 2.2.2.1.1

***** WASTE ITEM NO. 1 FAILED CIRCUIT BREAKER

STATE SOLID

DENSITY 77.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. FE,CU,AL

COMPOSITION PLASTICS

GENERATION DATA ...

QUANTITY (LBS)

10 YR. TOTAL

2.10

DAILY RATE

0.00

UNIT WEIGHT

1.00

RECLAMATION ACTION .. REPLACE

***** WASTE ITEM NO. 2 FAILED INVERTER REGULATOR

STATE SOLID

DENSITY 77.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. FE,CU,AL

COMPOSITION PLASTICS SI-SEMICOND.

GENERATION DATA ...

QUANTITY (LBS)

10 YR. TOTAL

358.00

DAILY RATE

0.00

UNIT WEIGHT

40.00

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 3 FAILED SOLAR ARRAY BATTERY CHARGER REG.

STATE SOLID

DENSITY 77.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. FE,CU,AL

COMPOSITION PLASTICS SI-SEMICOND.

GENERATION DATA ...

QUANTITY (LBS)

10 YR. TOTAL

16872.00

DAILY RATE

0.00

UNIT WEIGHT

80.00

RECLAMATION ACTION .. REPAIR

S/C SUBSYSTEM REGULATE POWER
GROUP KEY 2.2.2

** EQUIPMENT/EXPERIMENT NO. 1 POWER CONDITIONING SYSTEM
*** WASTE SOURCE NO. 1 POWER CONDITIONING SYSTEM

***** WASTE ITEM NO. 4 FAILED RI/BRAYTON BATTERY CHARGER REG.
STATE SOLID
DENSITY 77.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. FE,CU,AL
COMPOSITION PLASTICS SI-SEMICONDUCT.
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 6749.00
DAILY RATE 0.00
UNIT WEIGHT 80.00
RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 5 FAILED FUEL CELL
STATE SOLID
DENSITY 0.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. FE,CU,AL
COMPOSITION PLASTICS SI-SEMICONDUCT.
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 0.00
DAILY RATE 0.00
UNIT WEIGHT 0.00
RECLAMATION ACTION .. REPLACE

***** WASTE ITEM NO. 6 FAILED RECTIFIER FILTER
STATE SOLID
DENSITY 77.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. FE,CU,AL
COMPOSITION CERAMICS SI-SEMICONDUCT.
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 52.60
DAILY RATE 0.00
UNIT WEIGHT 20.00
RECLAMATION ACTION .. REPAIR

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RUN NO. ** 2 **

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S/C SUBSYSTEM REGULATE POWER
GROUP KEY 2.2.2

** EQUIPMENT/EXPERIMENT NO. 1 POWER CONDITIONING SYSTEM
*** WASTE SOURCE NO. 1 POWER CONDITIONING SYSTEM

***** WASTE ITEM NO. 7 FAILED TRANSFORMER

STATE SOLID
DENSITY 80.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. FE,CU,AL
COMPOSITION PLASTICS
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 2.75
DAILY RATE 0.00
UNIT WEIGHT 25.00
RECLAMATION ACTION .. REPLACE

***** WASTE ITEM NO. 8 FAILED POWER CONTACTOR

STATE SOLID
DENSITY 77.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. FE,CU,AL
COMPOSITION PLASTICS
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 2.45
DAILY RATE 0.00
UNIT WEIGHT 1.00
RECLAMATION ACTION .. REPLACE

***** WASTE ITEM NO. 9 FAILED MONITOR METER DC

STATE SOLID
DENSITY 77.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. CU,AL,FE,SIO2
COMPOSITION PLASTICS
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 0.04
DAILY RATE 0.00
UNIT WEIGHT 0.50
RECLAMATION ACTION .. REPAIR

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM REGULATE POWER
GROUP KEY 2.2.2

** EQUIPMENT/EXPERIMENT NO. 1 POWER CONDITIONING SYSTEM
*** WASTE SOURCE NO. 1 POWER CONDITIONING SYSTEM

*** ** WASTE ITEM NO. 10 FAILED MONITOR METER AC
STATE SOLID
DENSITY 77.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. CU,AL,FE,SIO2
COMPOSITION PLASTICS
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 0.04
DAILY RATE 0.00
UNIT WEIGHT 0.50
RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 11 FAILED MONITOR METER SWITCHES
STATE SOLID
DENSITY 77.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. CU,FE,AL
COMPOSITION PLASTICS
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 0.04
DAILY RATE 0.00
UNIT WEIGHT 0.25
RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 12 FAILED REMOTE CONTROL SWITCHES
STATE SOLID
DENSITY 77.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. CU,FE
COMPOSITION PLASTICS
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 0.11
DAILY RATE 0.00
UNIT WEIGHT 0.25
RECLAMATION ACTION .. REPLACE

** MANNED SPACECRAFT WASTE GENERATION DATA **

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RUN NO. ** 2 **

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S/C SUBSYSTEM REGULATE POWER
GROUP KEY 2.2.2

** EQUIPMENT/EXPERIMENT NO. 1 POWER CONDITIONING SYSTEM
*** WASTE SOURCE NO. 1 POWER CONDITIONING SYSTEM

***** WASTE ITEM NO. 13 PACKAGING FOR REPLACEMENT PARTS

STATE SOLID

DENSITY 5.00 LBS/CU. FT.

ATTRIBUTES PLASTIC

ELEMENTS PRESENT .. SPNGE AND SHEETING

COMPOSITION PLASTIC

GENERATION DATA ...

QUANTITY (LBS)

10 YR. TOTAL 0.00

DAILY RATE 0.00

UNIT WEIGHT 0.00

RECLAMATION ACTION .. REUSE AS IS

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM DISTRIBUTE POWER

GROUP KEY 2.2.3

BASIC FUNCTION MAINTAIN S/C FUNCTION

FUNCTIONAL REQUIREMENT PROVIDE ELECTRICAL AND THERMAL
POWER

** EQUIPMENT/EXPERIMENT NO. 1 POWER DISTRIBUTION SYSTEM

S/C AREAS POWER

**** WASTE SOURCE NO. 1 POWER DISTRIBUTION SYSTEM

DOCUMENT NO. 2.2.3.1.1

***** WASTE ITEM NO. 1 FAILED CCT.BKR.& GROUND LEAKAGE DETECTOR

STATE SOLID

DENSITY 77.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. FE,CU,AL,SI

COMPOSITION SEMICOND.PLASTICS

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 76.80

DAILY RATE 0.00

UNIT WEIGHT 20.00

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 2 FAILED CCT. BKR/LOAD CONTROL UNIT

STATE SOLID

DENSITY 77.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. FE,CU,AL,SI

COMPOSITION SEMICOND.PLASTICS

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 220.00

DAILY RATE 0.00

UNIT WEIGHT 20.00

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 3 FAILED CURRENT SENSITIVE ELEMENT

STATE SOLID

DENSITY 77.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. FE,CU,AL,SI

COMPOSITION SEMICOND.PLASTICS

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 30.30

DAILY RATE 0.00

UNIT WEIGHT 1.50

RECLAMATION ACTION .. REPAIR

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RUN NO. ** 2 **

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S/C SUBSYSTEM DISTRIBUTE POWER
GROUP KEY 2.2.3

** EQUIPMENT/EXPERIMENT NO. 1 POWER DISTRIBUTION SYSTEM
*** WASTE SOURCE NO. 1 POWER DISTRIBUTION SYSTEM

***** WASTE ITEM NO. 4 FAILED INDIVIDUAL LINE CCT. BREAKER
STATE SOLID
DENSITY 77.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. FE,CU,AL
COMPOSITION PLASTICS
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 3.70
DAILY RATE 0.00
UNIT WEIGHT 0.50
RECLAMATION ACTION .. REPLACE

***** WASTE ITEM NO. 5 FAILED MONITOR METER (AC)
STATE SOLID
DENSITY 77.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. CU,AL,FE,
COMPOSITION SILICA,PLASTICS
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 0.04
DAILY RATE 0.00
UNIT WEIGHT 0.50
RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 6 FAILED MONITOR METER SWITCHES
STATE SOLID
DENSITY 77.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. CU,AL,FE
COMPOSITION PLASTICS
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 0.04
DAILY RATE 0.00
UNIT WEIGHT 0.25
RECLAMATION ACTION .. REPAIR

S/C SUBSYSTEM DISTRIBUTE PCWER
 GROUP KEY 2.2.3

** EQUIPMENT/EXPERIMENT NO. 1 POWER DISTRIBUTION SYSTEM
 *** WASTE SOURCE NO. 1 POWER DISTRIBUTION SYSTEM

***** WASTE ITEM NO. 7 FAILED REMOTE CONTROL SWITCHES

STATE SOLID
 DENSITY 77.00 LBS/CU. FT.
 ATTRIBUTES METAL
 ELEMENTS PRESENT .. CU,FE
 COMPOSITION PLASTICS
 GENERATION DATA ... QUANTITY (LBS)
 10 YR. TOTAL 0.47
 DAILY RATE 0.00
 UNIT WEIGHT 0.25
 RECLAMATION ACTION .. REPLACE

***** WASTE ITEM NO. 8 PACKAGING FOR REPLACEMENT PARTS

STATE SOLID
 DENSITY 5.00 LBS/CU. FT.
 ATTRIBUTES PLASTIC
 ELEMENTS PRESENT ..
 COMPOSITION PLASTIC SPONGE & SHEETING
 GENERATION DATA ... QUANTITY (LBS)
 10 YR. TOTAL 0.00
 DAILY RATE 0.00
 UNIT WEIGHT 0.00
 RECLAMATION ACTION .. REUSE AS IS

***** WASTE ITEM NO. 9 FAILED CCT.BKR.& GROUND LEAKAGE DETECTOR

STATE SOLID
 DENSITY 77.00 LBS/CU. FT.
 ATTRIBUTES METAL
 ELEMENTS PRESENT .. FE,CU,AL,SI
 COMPOSITION SEMICONDUCT. PLASTICS
 GENERATION DATA ... QUANTITY (LBS)
 10 YR. TOTAL 76.80
 DAILY RATE 0.00
 UNIT WEIGHT 20.00
 RECLAMATION ACTION .. REPAIR

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RUN NO. ** **

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S/C SUBSYSTEM DISTRIBUTE PCIER
GROUP KEY 2.2.3

** EQUIPMENT/EXPERIMENT NO. 1 POWER DISTRIBUTION SYSTEM

*** WASTE SOURCE NO. 1 POWER DISTRIBUTION SYSTEM

***** WASTE ITEM NO. 10 FAILED CCT. BKR. & LOAD CONTROL UNIT

STATE SOLID

DENSITY 77.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. FE, CU, AL, SI

COMPOSITION SEMICOND. PLASTICS

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 84.80

DAILY RATE 0.00

UNIT WEIGHT 20.00

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 11 FAILED CURRENT SENSITIVE ELEMENT

STATE SOLID

DENSITY 77.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. FE, CU, AL, SI

COMPOSITION SEMICOND. PLASTICS

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 11.50

DAILY RATE 0.00

UNIT WEIGHT 12.00

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 12 FAILED INDIVIDUAL LINE CCT. BREAKER

STATE SOLID

DENSITY 77.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. FE, CU, AL

COMPOSITION PLASTIC

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 1.40

DAILY RATE 0.00

UNIT WEIGHT 0.50

RECLAMATION ACTION .. REPLACE

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RUN NO. ** 2 **

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S/C SUBSYSTEM DISTRIBUTE POWER
GROUP KEY 2.2.3

** EQUIPMENT/EXPERIMENT NO. 1 POWER DISTRIBUTION SYSTEM

** WASTE SOURCE NO. 1 POWER DISTRIBUTION SYSTEM

***** WASTE ITEM NO. 13 FAILED MONITOR METERS

STATE SOLID

DENSITY 77.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. CU,AL,FE,

COMPOSITION SILICA,PLASTICS

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 0.04

DAILY RATE 0.00

UNIT WEIGHT 0.50

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 14 FAILED MONITOR METER SWITCHES

STATE SOLID

DENSITY 77.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. FE,CU,AL

COMPOSITION PLASTICS

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 0.04

DAILY RATE 0.00

UNIT WEIGHT 0.25

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 15 FAILED REMOTE CONTROL SWITCHES

STATE SOLID

DENSITY 77.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. FE,CU

COMPOSITION PLASTICS

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 0.18

DAILY RATE 0.00

UNIT WEIGHT 0.25

RECLAMATION ACTION .. REPLACE

** MANNED SPACECRAFT WASTE GENERATION DATA **

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** MANNED SPACECRAFT WASTE GENERATION DATA **

PROVIDE FOR SYSTEM MAINTENANCE AND REPAIR

S/C SUBSYSTEM MAINTENANCE FACILITIES
 GROUP KEY 2.3.1

*** *****

BASIC FUNCTION MAINTAIN S/C FUNCTION
 FUNCTIONAL REQUIREMENT MAINTAIN AND REPAIR SPACE CRAFT

** EQUIPMENT/EXPERIMENT NO. 1 STRUCTURAL MAINTENANCE

S/C AREAS MAINTENANCE

*** WASTE SOURCE NO. 1 STRUCTURAL MAINTENANCE

DOCUMENT NO. 2.3.1.1.1

REFERENCE NO. 1 .. AIAA PAPER NO.69-1062, SPACE STATION OPER
 ATIONS REQUIREMENTS AND INTERACTIONS. FRI
 TZ C. RUNGE, MCDONNELL DOUGLAS ASTRO
 NAUTICS CO.

REFERENCE NO. 2 .. ASD-TDR-62-1015, REPAIR OF LEAKS IN AN
 AEROSPACE ENVIRONMENT, AFSC WRIGHT
 PATTERSON AFB, OHIO. PROJE
 CT NO.8170, TASK NO.817005.

REFERENCE NO. 3 .. N63-18867, SELF-SEALING SPACECRAFT STRUC
 TURES IN THE METEOROID ENVIRONMENT. N
 CRTHRUP SPACE LABORATORIES NO.NSL63-64AP
 RIL 1963, JAMES J. PIECHOCKI

REFERENCE NO. 4 .. ARS PAPER 2543-62, METEOROID PROTECTION
 FOR SPACE RADIATORS. I.J.LOEFLER, S.L
 IEBLIEN, N.CLOUGH, NASA LEWIS RESEA
 RCH CENTER, CLEVELAND, OHIO, 1962

***** WASTE ITEM NO. 1 TOWEL/SPONGE
 STATE SOLID, SOILED
 DENSITY 8.00 LBS/CU. FT.
 ATTRIBUTES TEXTILE SHEET
 ELEMENTS PRESENT ..
 COMPOSITION CELLULOSE
 GENERATION DATA ... QUANTITY (LBS)
 10 YR. TOTAL 10.00
 DAILY RATE 0.00
 UNIT WEIGHT 0.25
 RECLAMATION ACTION .. WASH

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***** WASTE ITEM NO. 4 PARTITION FASTNERS
STATE ..... SOLID
DENSITY ..... 500.00 LBS/CU. FT.
ATTRIBUTES ..... METAL
ELEMENTS PRESENT .. NI,CR,FE
COMPOSITION .....
GENERATION DATA ... QUANTITY (LBS)
    10 YR. TOTAL          25.00
    DAILY RATE            0.00
    UNIT WEIGHT            0.25
RECLAMATION ACTION .. N/A

```

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM MAINTENANCE FACILITIES
GROUP KEY 2.3.1

** EQUIPMENT/EXPERIMENT NO. 1 STRUCTURAL MAINTENANCE

** WASTE SOURCE NO. 1 STRUCTURAL MAINTENANCE

** *****

*** WASTE ITEM NO. 5 ANTENNAS AND SOLAR CELLS

STATE SOLID

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES METAL,LARGE,BULKY

ELEMENTS PRESENT .. AL,FE,SE,CU

COMPOSITION BOROSILICATES

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 0.00

DAILY RATE 0.00

UNIT WEIGHT 0.00

RECLAMATION ACTION ..

*** WASTE ITEM NO. 6 GLASS CLOTH PATCH SEPARATORS

STATE SOLID

DENSITY 65.00 LBS/CU. FT.

ATTRIBUTES PLASTIC,INERT SHEET

ELEMENTS PRESENT ..

COMPOSITION TEFLON

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 12.50

DAILY RATE 0.00

UNIT WEIGHT 0.25

RECLAMATION ACTION .. N/R

*** WASTE ITEM NO. 7 WORN AIRLOCK SEALS

STATE SOLID

DENSITY 40.00 LBS/CU. FT.

ATTRIBUTES PLASTIC,TUBULAR

ELEMENTS PRESENT ..

COMPOSITION RUBBER

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 400.00

DAILY RATE 0.00

UNIT WEIGHT 10.00

RECLAMATION ACTION .. N/R

11/30/70

RUN NC. ** 2 **

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S/C SUBSYSTEM MAINTENANCE FACILITIES
GROUP KEY 2.3.1

** EQUIPMENT/EXPERIMENT NO. 1 STRUCTURAL MAINTENANCE
*** WASTE SOURCE NO. 1 STRUCTURAL MAINTENANCE

***XX**

***** WASTE ITEM NO. 8 WORN AIRLOCK LATCH MECHANISM ASSEMBLIES

STATE	SOLID
DENSITY	200.00 LBS/CU. FT.
ATTRIBUTES	METAL HEAVY
ELEMENTS PRESENT ..	FE
COMPOSITION	
GENERATION DATA ...	QUANTITY (LBS)
10 YR. TOTAL	1000.00
DAILY RATE	0.00
UNIT WEIGHT	50.00
RECLAMATION ACTION ..	OVERHAUL

11/30/70

RUN NO. ** 2 *

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S/C SUBSYSTEM MAINTENANCE FACILITIES

GROUP KEY 2.3.1

** EQUIPMENT/EXPERIMENT NO. 2 AVIONICS SYSTEMS MAINTENANCE

S/C AREAS MAINTENANCE

*** WASTE SOURCE NO. 1 AVIONICS SYSTEMS MAINTENANCE

DOCUMENT NO. 2.3.1.2.1

REFERENCE NO. 1 .. STUDY OF SPACE STATION PROPULSION SYSTEM
RESUPPLY AND REPAIR. BY VICTOR A.
DES CAMP, MARTIN MARIETTA CORP., DENVE
R, COLORADO, JAN. 1970

REFERENCE NO. 2 .. SELECTING BETWEEN REDUNDANCY AND REPAIR
IN MANNED SPACECRAFT. MEMORANDUM RM-4
325-NASA, THE RAND CORPORATION, SANTA
MONICA, CALIFORNIA, SEPT. 1964

REFERENCE NO. 3 .. THE REQUIREMENT FOR MAINTAINABLE ELECTRO
NICS ON LONG DURATION MANNED SPACE MISS
ICNS. BY M.L. JOHNSON, AIAA PAPER A70-2
4895

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM MAINTENANCE FACILITIES

GROUP KEY 2.3.1

** ,EQUIPMENT/EXPERIMENT NO. 3 UTILITIES MAINTENANCE

S/C AREAS MAINTENANCE

PROVIDE COMMUNICATION AND NAVIGATION

S/C SUBSYSTEM SHIP-TO-BASE COMMUNICATIONS

GROUP KEY 2.4.1

BASIC FUNCTION MAINTAIN S/C FUNCTION

FUNCTIONAL REQUIREMENT PROVIDE COMMUNICATION

** EQUIPMENT/EXPERIMENT NO. 1 TO AND FROM GROUND-DATA RELAY SP
ACE SATELLITES
S/C AREAS COMMUNICATIONS

*** WASTE SOURCE NO. 1 TO AND FROM GROUND-DATA RELAY SPACE SATE
LLITES
DOCUMENT NO. 2.4.1.1.1*

REFERENCE NO. 1 .. COMMUNICATION SUBSYSTEM-PRELIMINARY DESI
GN SHEET FOR SPACE STATION PROGRAM MC DO
NNELL DOUGLAS CORP.

REFERENCE NO. 2 .. WEIGHT, VOLUME AND RELIABILITY TABLES FOR
THE EQUIPMENTS COMPRISING THE SPACE STA
TION COMMUNICATIONS SUBSYSTEM-COLLINS RA
DIO CO. LETTER DATED MAY 18, 1970.

REFERENCE NO. 3 .. MSFC-DRL-160 LINE ITEM 13 PRELIMINARY SY
STEMS DESIGN DATA VOLUME 1, SPACE STATION
PRELIMINARY DESIGN BOOK 2, ELECTRONICS M
DC GD634.

*** WASTE ITEM NO. 1 FAILED KU BAND REFLECTOR, FEED & POSITIONER
STATE SOLID
DENSITY 50.00 LBS/CU. FT.
ATTRIBUTES METAL, PLASTIC
ELEMENTS PRESENT .. AL, CU, FE
COMPOSITION PLASTIC
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 1408.00
DAILY RATE 0.00
UNIT WEIGHT 440.00
RECLAMATION ACTION .. REPAIR

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM SHIP-TO-BASE COMMUNICATIONS
GROUP KEY 2.4.1

** EQUIPMENT/EXPERIMENT NO. 1 TO AND FROM GROUND-DATA RELAY SP
ACE SATELLITES

*** WASTE SOURCE NO. 1 TO AND FROM GROUND-DATA RELAY SPACE SATE
LLITES

***** WASTE ITEM NO. 2 FAILED KU BAND MIXER/MULTIPLEXER

STATE SOLID

DENSITY 60.00 LBS/CU. FT.

ATTRIBUTES METAL, PLASTIC

ELEMENTS PRESENT .. AL, CU, FE,

COMPOSITION PLASTIC

GENERATION DATA ...

QUANTITY (LBS)

10 YR. TOTAL 8.80

DAILY RATE 0.00

UNIT WEIGHT 20.00

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 3 FAILED KU BAND FERRITE SWITCHES&QUADRU

STATE SOLID

DENSITY 60.00 LBS/CU. FT.

ATTRIBUTES METAL, PLASTIC

ELEMENTS PRESENT .. AL, CU, FE,

COMPOSITION PLASTICS

GENERATION DATA ...

QUANTITY (LBS)

10 YR. TOTAL 1.40

DAILY RATE 0.00

UNIT WEIGHT 6.00

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 4 FAILED KU BAND FM TRANSMITTER

STATE SOLID

DENSITY 108.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL, CU, FE

COMPOSITION PLASTIC

GENERATION DATA ...

QUANTITY (LBS)

10 YR. TOTAL 60.00

DAILY RATE 0.00

UNIT WEIGHT 25.00

RECLAMATION ACTION .. REPAIR

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NC. ** 2 **

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S/C SUBSYSTEM SHIP-TO-BASE COMMUNICATIONS
GROUP KEY 2.4.1

** EQUIPMENT/EXPERIMENT NO. 1 TO AND FROM GROUND-DATA RELAY SP
ACE SATELLITES

*** WASTE SOURCE NO. 1 TO AND FROM GROUND-DATA RELAY SPACE SATE
LLITES

***** WASTE ITEM NO. 5 FAILED FM TRANSMITTER MODEM

STATE SOLID
DENSITY 58.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. AL,CU,SI,
COMPOSITION PLASTIC
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 6.60
DAILY RATE 0.00
UNIT WEIGHT 10.00
RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 6 FAILED KU BAND FM RECEIVER

STATE SOLID
DENSITY 58.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. AL,CU
COMPOSITION PLASTIC
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 2.40
DAILY RATE 0.00
UNIT WEIGHT 10.00
RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 7 FAILED FM RECEIVER MODEM

STATE SOLID
DENSITY 0.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. AL,CU
COMPOSITION PLASTIC
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 1.90
DAILY RATE 0.00
UNIT WEIGHT 5.00
RECLAMATION ACTION .. REPAIR

11/30/70

RUN NO. ** 2 **

PAGE 156

S/C SUBSYSTEM SHIP-TO-BASE COMMUNICATIONS
GROUP KEY 2.4.1

** EQUIPMENT/EXPERIMENT NO. 1 TO AND FROM GROUND-DATA RELAY SP
ACE SATELLITES

**** WASTE SOURCE NO. 1 TO AND FROM GROUND-DATA RELAY SPACE SATE
LLITES

**** WASTE ITEM NO. 8 FAILED KU BAND PM TRANSMITTER

STATE	SOLID	
DENSITY	86.00 LBS/CU. FT.	
ATTRIBUTES	METAL	
ELEMENTS PRESENT ..	AL,CU,FE	
COMPOSITION	PLASTIC,CERAM.	
GENERATION DATA ...		QUANTITY (LBS)
10 YR. TOTAL		2.20
DAILY RATE		0.00
UNIT WEIGHT		10.00
RECLAMATION ACTION ..	REPAIR	

***** WASTE ITEM NO. 9 FAILED PM TRANSMITTER MODEM

STATE	SOLID	
DENSITY	72.00 LBS/CU. FT.	
ATTRIBUTES	METAL	
ELEMENTS PRESENT ..	AL,CU	
COMPOSITION	PLASTIC	
GENERATION DATA ...		QUANTITY (LBS)
10 YR. TOTAL		1.00
DAILY RATE		0.00
UNIT WEIGHT		2.50
RECLAMATION ACTION ..	REPAIR	

***** WASTE ITEM NO. 10 FAILED KU BAND PM RECEIVER

STATE	SOLID	
DENSITY	86.00 LBS/CU. FT.	
ATTRIBUTES	METAL	
ELEMENTS PRESENT ..	AL,CU	
COMPOSITION	PLASTIC	
GENERATION DATA ...		QUANTITY (LBS)
10 YR. TOTAL		2.80
DAILY RATE		0.00
UNIT WEIGHT		10.00
RECLAMATION ACTION ..	REPAIR	

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM SHIP-TO-BASE COMMUNICATIONS

GROUP KEY 2.4.1

** EQUIPMENT/EXPERIMENT NO. 1 TO AND FROM GROUND-DATA RELAY SP
ACE SATELLITES

*** WASTE SOURCE NO. 1 TC AND FROM GROUND-DATA RELAY SPACE SATE
LLITES

*** WASTE ITEM NO. 11 FAILED PM RECEIVER MCDEM

STATE SOLID

DENSITY 58.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL, CU

COMPOSITION PLASTIC

GENERATION DATA ...

QUANTITY (LBS)

10 YR. TOTAL 3.30

DAILY RATE 0.00

UNIT WEIGHT 5.00

RECLAMATION ACTION .. REPAIR

*** * WASTE ITEM NO. 12 PACKAGING FOR REPLACEMENT PARTS

STATE SOLID

DENSITY 5.00 LBS/CU. FT.

ATTRIBUTES PLASTIC

ELEMENTS PRESENT ..

COMPOSITION PLASTIC SPONGE AND SHEETING

GENERATION DATA ...

QUANTITY (LBS)

10 YR. TOTAL 0.00

DAILY RATE 0.00

UNIT WEIGHT 0.00

RECLAMATION ACTION .. REUSE AS IS

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM SHIP-TO-BASE COMMUNICATIONS

GROUP KEY 2.4.1

** EQUIPMENT/EXPERIMENT NO. 2 TO AND FROM GROUND-DIRECT

S/C AREAS COMMUNICATIONS

**** WASTE SOURCE NO. 1 TO AND FROM GROUND-DIRECT

DOCUMENT NO. 2.4.1.2.1*

REFERENCE NO. 1 .. COMMUNICATIONS SUBSYSTEM-PRELIMINARY DESIGN SHEET FOR SPACE STATION PROGRAM-MC DONNELL DOUGLAS CORP.

REFERENCE NO. 2 .. WEIGHT, VOLUME AND RELIABILITY TABLES FOR THE EQUIPMENTS COMPRISING THE SPACE STATION COMMUNICATIONS SUBSYSTEM-COLLINS RADIO CO. LETTER DATED MAY 18, 1970.

REFERENCE NO. 3 .. MSFC-DRL-160 LINE ITEM 13 PRELIMINARY DESIGN, BOOK 2, ELECTRONICS MDC 60634.

***** WASTE ITEM NO. 1 FAILED S-BAND OMNI-DIRECTIONAL ANTENNAE

STATE SOLID

DENSITY 25.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL

COMPOSITION PLASTIC

GENERATION DATA ...

QUANTITY (LBS)

10 YR. TOTAL

0.14

DAILY RATE

0.00

UNIT WEIGHT

2.00

RECLAMATION ACTION .. REPLACE

***** WASTE ITEM NO. 2 FAILED S-BAND DIPLEXER/SWITCHES

STATE SOLID

DENSITY 62.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL, FE, CU

COMPOSITION

GENERATION DATA ...

QUANTITY (LBS)

10 YR. TOTAL

0.84

DAILY RATE

0.00

UNIT WEIGHT

6.00

RECLAMATION ACTION .. REPAIR

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM SHIP-TJ-BASE COMMUNICATIONS
GROUP KEY 2.4.1

** EQUIPMENT/EXPERIMENT NO. 2 TO AND FROM GROUND-DIRECT

*** WASTE SOURCE NO. 1 TO AND FROM GROUND-DIRECT

***** WASTE ITEM NO. 3 FAILED S-BAND FERRITE SWITCHES

STATE SOLID

DENSITY 60.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL,FE,CU

COMPOSITION

GENERATION DATA ...

QUANTITY (LBS)

10 YR. TOTAL 0.07

DAILY RATE 0.00

UNIT WEIGHT 5.50

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 4 FAILED S-BAND PM TRANSPONDER

STATE SOLID

DENSITY 80.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL,CU,FE,SI

COMPOSITION

GENERATION DATA ...

QUANTITY (LBS)

10 YR. TOTAL 47.00

DAILY RATE 0.00

UNIT WEIGHT 14.00

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 5 FAILED S-BAND FM TRANSMITTER

STATE SOLID

DENSITY 58.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL,CU,FE,SI

COMPOSITION

GENERATION DATA ...

QUANTITY (LBS)

10 YR. TOTAL 42.00

DAILY RATE 0.00

UNIT WEIGHT 12.00

RECLAMATION ACTION .. REPAIR

** MANNEO SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

PAGE 160

S/C SUBSYSTEM SHIP-TO-BASE COMMUNICATIONS
GROUP KEY 2.4.1

** EQUIPMENT/EXPERIMENT NO. 2 TO AND FROM GROUND-DIRECT
*** WASTE SOURCE NO. 1 TO AND FROM GROUND-DIRECT

***** WASTE ITEM NO. 6 FAILED TRANSPONDER
STATE SOLID
DENSITY 60.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. AL,CU,FE,SI
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 12.00
DAILY RATE 0.00
UNIT WEIGHT 10.00
RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 7 FAILED TRANSMITTER MODEM
STATE SOLID
DENSITY 73.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. AL,CU,FE,SI
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 1.50
DAILY RATE 0.00
UNIT WEIGHT 2.50
RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 8 PACKAGING FOR REPLACEMENT PARTS
STATE SOLID
DENSITY 5.00 LBS/CU. FT.
ATTRIBUTES PLASTIC
ELEMENTS PRESENT ..
COMPOSITION PLASTIC SPONGE AND SHEETING
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 0.00
DAILY RATE 0.00
UNIT WEIGHT 0.00
RECLAMATION ACTION .. REUSE AS IS

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM INTER-VEHICULAR COMMUNICATIONS

GROUP KEY 2.4.2

BASIC FUNCTION MAINTAIN S/C FUNCTION

FUNCTIONAL REQUIREMENT PROVIDE COMMUNICATION

** EQUIPMENT/EXPERIMENT NO. 1 TO AND FROM EXPERIMENT MODULES

S/C AREAS COMMUNICATIONS

*** WASTE SOURCE NO. 1 TO AND FROM EXPERIMENT MODULES

DOCUMENT NO. 2.4.2.1.1*

REFERENCE NO. 1 .. COMMUNICATION SUBSYSTEM - PRELIMINARY DESIGN SHEET FOR SPACE STATION PROGRAM - MCDONNELL DOUGLAS CORP.

REFERENCE NO. 2 .. WEIGHT, VOLUME, AND RELIABILITY TABLES FOR THE EQUIPMENTS COMPRISING THE SPACE STATION COMMUNICATIONS SUBSYSTEM - COLLINS RADIO COMPANY LETTER DATED MAY 18, 197

REFERENCE NO. 3 .. MSFC-DRL-160 LINE ITEM 13 - PRELIMINARY SYSTEMS DESIGN DATA, VOLUME 1. SPACE STATION PRELIMINARY DESIGN - BOOK 2, ELECTRONICS, MDC 60634.

***** WASTE ITEM NO. 1 FAILED UHF OMNI-DIRECTIONAL ANTENNAE

STATE SOLID

- DENSITY 25.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL

COMPOSITION PLASTIC

GENERATION DATA ...

QUANTITY (LBS)

10 YR. TOTAL 0.70

DAILY RATE 0.00

UNIT WEIGHT 10.00

RECLAMATION ACTION .. REPLACE

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

PAGE 162

S/C SUBSYSTEM INTER-VEHICULAR COMMUNICATIONS
GROUP KEY 2.4.2

** EQUIPMENT/EXPERIMENT NO. 1TO AND FROM EXPERIMENT MODULES
*** WASTE SOURCE NO. 1 TO AND FROM EXPERIMENT MODULES

***** WASTE ITEM NO. 2 FAILED UHF POWER DIVIDER
STATE SOLID
DENSITY 25.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. AL
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 0.07
DAILY RATE 0.00
UNIT WEIGHT 2.00
RECLAMATION ACTION .. REPLACE

***** WASTE ITEM NO. 3 UHF SOLID STATE SWITCH MULTIPLEXER
STATE SOLID
DENSITY 50.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. AL, CU, FE, SI
COMPOSITION PLASTIC
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 0.84
DAILY RATE 0.00
UNIT WEIGHT 12.00
RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 4 FAILED UHF FM TRANSMITTER
STATE SOLID
DENSITY 130.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. AL, CU, FE, SI
COMPOSITION PLASTIC
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 0.20
DAILY RATE 0.00
UNIT WEIGHT 1.50
RECLAMATION ACTION .. REPAIR

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM INTER-VEHICULAR COMMUNICATIONS
GROUP KEY 2.4.2

** EQUIPMENT/EXPERIMENT NO. 1 TO AND FROM EXPERIMENT MODULES
*** WASTE SOURCE NO. 1 TO AND FROM EXPERIMENT MODULES

*** ** WASTE ITEM NO. 5 FAILED UHF TRANSMITTER MODEM
STATE SOLID
DENSITY 86.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. AL, CU, FE, SI
COMPOSITION PLASTIC
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 0.56
DAILY RATE 0.00
UNIT WEIGHT 2.00
RECLAMATION ACTION .. REPAIR

*** ** WASTE ITEM NO. 6 FAILED UHF FM VIDEO RECEIVER
STATE SOLID
DENSITY 130.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. AL, CU, FE, SI
COMPOSITION PLASTIC
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 3.50
DAILY RATE 0.00
UNIT WEIGHT 3.00
RECLAMATION ACTION .. REPAIR

*** ** WASTE ITEM NO. 7 FAILED UHF PM DATA RECEIVER
STATE SOLID
DENSITY 130.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. AL, CU, FE, SI
COMPOSITION PLASTIC
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 3.40
DAILY RATE 0.00
UNIT WEIGHT 3.00
RECLAMATION ACTION .. REPAIR

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM INTER-VEHICULAR COMMUNICATIONS
GROUP KEY 2.4.2

** EQUIPMENT/EXPERIMENT NO. 1 TO AND FROM EXPERIMENT MODULES
*** WASTE SOURCE NO. 1 TC AND FROM EXPERIMENT MODULES

***** WASTE ITEM NO. 8 FAILED VIDEO RECEIVER MODEM
STATE SOLID
DENSITY 72.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. AL, CU, FE, SI
COMPOSITION PLASTIC
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 8.60
DAILY RATE 0.00
UNIT WEIGHT 2.50
RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 9 FAILED DATA RECEIVER MODEM
STATE SOLID
DENSITY 72.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT .. AL, CU, FE, SI
COMPOSITION PLASTIC
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 5.70
DAILY RATE 0.00
UNIT WEIGHT 2.50
RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 10 PACKAGING FOR REPLACEMENT PARTS
STATE SOLID
DENSITY 5.00 LBS/CU. FT.
ATTRIBUTES PLASTIC
ELEMENTS PRESENT ..
COMPOSITION PLASTIC SPONGE, SHEETING
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 0.00
DAILY RATE 0.00
UNIT WEIGHT 0.00
RECLAMATION ACTION ..

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM INTER-VEHICULAR COMMUNICATIONS
GROUP KEY 2.4.2

** EQUIPMENT/EXPERIMENT NO. 2 TO AND FROM SPACE STATION SHUTTLE
E

S/C AREAS COMMUNICATIONS

*** WASTE SOURCE NO. 1 TO AND FROM SPACE STATION SHUTTLE

DOCUMENT NO. 2.4.2.2.1*

REFERENCE NO. 1 .. COMMUNICATION SUBSYSTEM - PRELIMINARY DESIGN SHEET FOR SPACE STATION PROGRAM - MCDONNELL DOUGLAS CORP.

REFERENCE NO. 2 .. WEIGHT, VOLUME, AND RELIABILITY TABLES FOR THE EQUIPMENTS COMPRISING THE SPACE STATION COMMUNICATIONS SUBSYSTEM - COLLINS RADIO COMPANY LETTER DATED MAY 18, 1970

REFERENCE NO. 3 .. MSFC-DRL-160 LINE ITEM 13 - PRELIMINARY SYSTEMS DESIGN DATA, VOLUME 1. SPACE STATION PRELIMINARY DESIGN - BOOK 2, ELECTRONICS, MDC G0634.

***** WASTE ITEM NO. 1 FAILED VHF OMNI-DIRECTIONAL ANTENNAE

STATE SOLID

DENSITY 25.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL

COMPOSITION PLASTIC

GENERATION DATA ...

QUANTITY (LBS)

10 YR. TOTAL

1.05

DAILY RATE

0.00

UNIT WEIGHT

15.00

RECLAMATION ACTION .. REPLACE

***** WASTE ITEM NO. 2 SOLID STATE SWITCH/QUADRUPLER

STATE SOLID

DENSITY 50.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL, FE, SI

COMPOSITION PLASTIC

GENERATION DATA ...

QUANTITY (LBS)

10 YR. TOTAL

0.84

DAILY RATE

0.00

UNIT WEIGHT

12.00

RECLAMATION ACTION .. REPAIR

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM INTER-VEHICULAR COMMUNICATIONS
GROUP KEY 2.4.2

** EQUIPMENT/EXPERIMENT NO. 2 TO AND FROM SPACE STATION SHUTTLE
E

*** WASTE SOURCE NO. 1 TO AND FROM SPACE STATION SHUTTLE

***** WASTE ITEM NO. 3 FAILED VHF VOICE RANGING T/R

STATE SOLID

DENSITY 58.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL, CU, FE, SI

COMPOSITION PLASTIC

GENERATION DATA ...

QUANTITY (LBS)

10 YR. TOTAL

84.00

DAILY RATE

0.00

UNIT WEIGHT

15.00

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 4 FAILED RANGING MODEM

STATE SOLID

DENSITY 54.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL, CU, FE, SI

COMPOSITION PLASTIC

GENERATION DATA ...

QUANTITY (LBS)

10 YR. TOTAL

40.00

DAILY RATE

0.00

UNIT WEIGHT

9.00

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 5 FAILED VOICE MODEM

STATE SOLID

DENSITY 54.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL, CU, FE, SI

COMPOSITION PLASTIC

GENERATION DATA ...

QUANTITY (LBS)

10 YR. TOTAL

3.80

DAILY RATE

0.00

UNIT WEIGHT

5.00

RECLAMATION ACTION .. REPAIR

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM INTER-VEHICULAR COMMUNICATIONS
 GROUP KEY 2.4.2

** EQUIPMENT/EXPERIMENT NO. 2 TO AND FROM SPACE STATION SHUTTLE
 E

*** WASTE SOURCE NO. 1 TO AND FROM SPACE STATION SHUTTLE

***** WASTE ITEM NO. 6 FAILED VHF DATA T/R

STATE	SOLID	
DENSITY	58.00 LBS/CU. FT.	
ATTRIBUTES	METAL	
ELEMENTS PRESENT ..	AL, CU, FE, SI	
COMPOSITION	PLASTIC	
GENERATION DATA ...		QUANTITY (LBS)
10 YR. TOTAL		84.00
DAILY RATE		0.00
UNIT WEIGHT		15.00
RECLAMATION ACTION ..	REPAIR	

***** WASTE ITEM NO. 7 FAILED DATA MODEM

STATE	SOLID	
DENSITY	55.00 LBS/CU. FT.	
ATTRIBUTES	METAL	
ELEMENTS PRESENT ..	AL, CU, FE, SI	
COMPOSITION	PLASTIC	
GENERATION DATA ...		QUANTITY (LBS)
10 YR. TOTAL		1.70
DAILY RATE		0.00
UNIT WEIGHT		4.00
RECLAMATION ACTION ..	REPAIR	

***** WASTE ITEM NO. 8 PACKAGING FOR REPLACEMENT PARTS

STATE	SOLID	
DENSITY	5.00 LBS/CU. FT.	
ATTRIBUTES	PLASTIC	
ELEMENTS PRESENT ..		
COMPOSITION	PLASTIC	
GENERATION DATA ...		QUANTITY (LBS)
10 YR. TOTAL		0.00
DAILY RATE		0.00
UNIT WEIGHT		0.00
RECLAMATION ACTION ..		

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM INTER-VEHICULAR COMMUNICATIONS

GROUP KEY 2.4.2

** EQUIPMENT/EXPERIMENT NO. 3 EXTRA-VEHICULAR COMMUNICATIONS

S/C AREAS COMMUNICATIONS

**** WASTE SOURCE NO. 1 EXTRA-VEHICULAR COMMUNICATIONS

DOCUMENT NO. 2.4.2.3.1*

REFERENCE NO. 1 .. COMMUNICATION SUBSYSTEM - PRELIMINARY DESIGN SHEET FOR SPACE STATION PROGRAM - MCDONNELL DOUGLAS CORP.

REFERENCE NO. 2 .. WEIGHT, VOLUME, AND RELIABILITY TABLES FOR THE EQUIPMENT COMPRISING THE SPACE STATION COMMUNICATIONS SUBSYSTEM - COLLINS RADIO COMPANY LETTER DATED MAY 18, 1970

REFERENCE NO. 3 .. MSFC-DRL-160 LINE ITEM 13 - PRELIMINARY SYSTEMS DESIGN DATA, VOLUME 1. SPACE STATION PRELIMINARY DESIGN - BOOK 2, ELECTRONICS MDC 60634.

***** WASTE ITEM NO. 1 FAILED OMNI-DIRECTIONAL ANTENNAE

STATE SOLID

DENSITY 25.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL

COMPOSITION PLASTIC

GENERATION DATA ...

QUANTITY (LBS)

10 YR. TOTAL

1.05

DAILY RATE

0.00

UNIT WEIGHT

15.00

RECLAMATION ACTION .. REPLACE

***** WASTE ITEM NO. 2 FAILED SOLID STATE SWITCH/DUPLEXER

STATE SOLID

DENSITY 50.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL, FE, SI

COMPOSITION PLASTIC

GENERATION DATA ...

QUANTITY (LBS)

10 YR. TOTAL

1.26

DAILY RATE

0.00

UNIT WEIGHT

18.00

RECLAMATION ACTION .. REPAIR

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM INTER-VEHICULAR COMMUNICATIONS
 GROUP KEY 2.4.2

** EQUIPMENT/EXPERIMENT NO. 3 EXTRA-VEHICULAR COMMUNICATIONS
 *** WASTE SOURCE NO. 1 EXTRA-VEHICULAR COMMUNICATIONS
 **** *****

**** WASTE ITEM NO. 3 FAILED VHF FM XMTR/RCVR
 STATE SOLID
 DENSITY 70.00 LBS/CU. FT.
 ATTRIBUTES METAL
 ELEMENTS PRESENT .. AL, CU, FE, SI
 COMPOSITION PLASTIC
 GENERATION DATA ... QUANTITY (LBS)
 10 YR. TOTAL 1.64
 DAILY RATE 0.00
 UNIT WEIGHT 2.00
 RECLAMATION ACTION .. REPAIR

**** WASTE ITEM NO. 4 FAILED MODEM
 STATE SOLID
 DENSITY 70.00 LBS/CU. FT.
 ATTRIBUTES METAL
 ELEMENTS PRESENT .. AL, CU, FE, SI
 COMPOSITION PLASTIC
 GENERATION DATA ... QUANTITY (LBS)
 10 YR. TOTAL 6.56
 DAILY RATE 0.00
 UNIT WEIGHT 8.00
 RECLAMATION ACTION .. REPAIR

**** WASTE ITEM NO. 5 PACKAGING FOR REPLACEMENT PARTS
 STATE SOLID
 DENSITY 5.00 LBS/CU. FT.
 ATTRIBUTES PLASTIC
 ELEMENTS PRESENT ..
 COMPOSITION PLASTIC SPONGE, SHEETING
 GENERATION DATA ... QUANTITY (LBS)
 10 YR. TOTAL 0.00
 DAILY RATE 0.00
 UNIT WEIGHT 0.00
 RECLAMATION ACTION .. REUSE AS IS

S/C SUBSYSTEM INTRA-VEHICULAR COMMUNICATIONS

GROUP KEY 2.4.3

BASIC FUNCTION MAINTAIN S/C FUNCTION

FUNCTIONAL REQUIREMENT PROVIDE COMMUNICATION

** EQUIPMENT/EXPERIMENT NO. 1 ONBOARD COMMUNICATIONS

S/C AREAS COMMUNICATIONS

**** WASTE SOURCE NO. 1 ONBOARD COMMUNICATIONS

DOCUMENT NO. 2.4.3.1.1

REFERENCE NO. 1 .. COMMUNICATION SUBSYSTEM PRIMARILY DESIGN
SHEET FOR SPACE STATION PROGRAM -
MCDONNELL DOUGLAS CORP.REFERENCE NO. 2 .. WEIGHT, VOLUME AND RELIABILITY TABLES FOR
THE EQUIPMENTS COMPRISING THE SPACE ST
ATION COMMUNICATIONS SUBSYSTEM COLLI
NS RADIO COMPANY LETTER DATED MAY 18, 19REFERENCE NO. 3 .. MSFC-DRL-160 LINE ITEM 13
PRELIMINARY SYSTEMS DESIGN DATA VOL
LUME 1 SPACE STATION PRELIMINARY DESIG
N - BOOK 2 - ELECTRONICS MDC G0634

***** WASTE ITEM NO. 1 FAILED AUDIO/CONTROL MODEM

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT ..

COMPOSITION SEMI-COND. PLASTICS

GENERATION DATA ...

QUANTITY (LBS)

10 YR. TOTAL 57.60

DAILY RATE 0.00

UNIT WEIGHT 4.00

RECLAMATION ACTION .. REPAIR

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM INTRA-VEHICULAR COMMUNICATIONS
GROUP KEY 2.4.3

** EQUIPMENT/EXPERIMENT NO. 1 HARBOARD COMMUNICATIONS

*** WASTE SOURCE NO. 1 CNBCARD COMMUNICATIONS

* * * * * *****

***** WASTE ITEM NO. 2 FAILED TV CONTROL MODEM

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL,CU,FE,SI

COMPOSITION SEMI-COND. PLASTIC

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 17.10

DAILY RATE 0.00

UNIT WEIGHT 3.00

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 3 FAILED ANALOG SYNC/TEST MODEM

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL,CU,FE,SI

COMPOSITION SEMI-COND. PLASTICS

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 5.00

DAILY RATE 0.00

UNIT WEIGHT 5.00

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 4 FAILED DIGITAL DATA MODEM

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL,CU,FE,SI

COMPOSITION SEMI-COND. PLASTICS

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 5.00

DAILY RATE 0.00

UNIT WEIGHT 5.00

RECLAMATION ACTION .. REPAIR

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM INTRA-VEHICULAR COMMUNICATIONS
GROUP KEY 2.4.3

** EQUIPMENT/EXPERIMENT NO. 1 ONBOARD COMMUNICATIONS

*** WASTE SOURCE NO. 1 ONBOARD COMMUNICATIONS

*** *****

*** ** WASTE ITEM NO. 5 PACKAGING FOR REPLACEMENT PARTS

STATE SOLID

DENSITY 5.00 LBS/CU. FT.

ATTRIBUTES PLASTIC

ELEMENTS PRESENT ..

COMPOSITION PLASTIC SPONGE AND SHEETING

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 0.00

DAILY RATE 0.00

UNIT WEIGHT 0.00

RECLAMATION ACTION .. REUSE AS 1S

** MANNED SPACECRAFT WASTE GENERATION DATA **

PROVIDE STATION DATA COLLECTION AND STORAGE

S/C SUBSYSTEM DATA COLLECTION, STORAGE AND DISPLAY
 GROUP KEY 2.5.1

BASIC FUNCTION MAINTAIN S/C FUNCTION
 FUNCTIONAL REQUIREMENT PROVIDE FOR DATA MANAGEMENT

* EUIPMENT/EXPERIMENT NO. 1 DATA MANAGEMENT-ELECTRONIC

S/C AREAS COMPUTER

*** WASTE SOURCE NO. 1 DATA MANAGEMENT-ELECTRONIC

DOCUMENT NO. 2.5.1.1.1

REFERENCE NO. 1 .. MCDONALD DOUGLAS SPACE STATION REPORT #1
 DC GO634 PRELIMINARY SYSTEMS DESIGN D
 ATA, VOLUME 1, BOOK 2, MSFC-DRL-160LINE
 ITEM 13, JULY, 1970

REFERENCE NO. 2 .. FARADA, FAILURE RATE DATA HANDBOOK, VOLU
 ME 1A, BUREAU OF NAVAL WEAPONS, TRI-SERVI
 CE, NASA, SP-63-470

REFERENCE NO. 3 .. ATS PROGRAM FAIRCHILD HILLER CORP.

REFERENCE NO. 4 .. RELIABILITY REPORT, NOV. 1968, NATIONAL
 SEMICONDUCTOR CORPORATION, PAGE 14

REFERENCE NO. 5 .. RELIABILITY OF EPOXY TRANSISTORS, PRESEN
 TED AT 1969 ANNUAL SYMPOSIUM OF RELIAB
 ILITY BY GENERAL ELECTRIC, PAGE 17.

REFERENCE NO. 6 .. THE REQUIREMENT FOR MAINTAINABLE ELECTRO
 NICS ON LONG-DURATION MANNED SPACE MISS
 ION BY MR. M. L. JOHNSON OF THE AEROS
 PACE SYSTEMS DIVISION, APRIL, 1969.

***** WASTE ITEM NO. 1 CONTROLS/ARITHMETIC MODULES BOOK MODULE
 STATE SOLID, RIGID, SHEET
 DENSITY 50.00 LBS/CU. FT.
 ATTRIBUTES METAL, PLASTIC
 ELEMENTS PRESENT .. AL, CU
 COMPOSITION PHENOLIC, FIBERGLASS, SILICON
 GENERATION DATA ... QUANTITY (LBS)
 10 YR. TOTAL 48.75
 DAILY RATE 0.00
 UNIT WEIGHT 2.50
 RECLAMATION ACTION .. REPAIR

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM DATA COLLECTION, STORAGE AND DISPLAY
GROUP KEY 2.5.1

** EQUIPMENT/EXPERIMENT NO. 1 DATA MANAGEMENT-ELECTRONIC
*** WASTE SOURCE NO. 1 DATA MANAGEMENT-ELECTRONIC

**** WASTE ITEM NO. 2 MAIN MEMORY BOOK MODULE
STATE SOLID,RIGID,SHEE
DENSITY 50.00 LBS/CU. FT.
ATTRIBUTES METAL,PLASTIC
ELEMENTS PRESENT .. AL,CU
COMPOSITION PHENOLIC,FIBERGLASS,SILICON
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 2.50
DAILY RATE 0.00
UNIT WEIGHT 2.50
RECLAMATION ACTION .. REPAIR

**** WASTE ITEM NO. 3 MAGNETIC TAPE
STATE SOLID,
DENSITY 40.00 LBS/CU. FT.
ATTRIBUTES PLASTIC, WOUND RIBBON
ELEMENTS PRESENT .. IRON OXIDE
COMPOSITION MYLAR
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 5.00
DAILY RATE 0.00
UNIT WEIGHT 5.00
RECLAMATION ACTION .. REPLACE

**** WASTE ITEM NO. 4 MAGNETIC DISC
STATE SOLID
DENSITY 40.00 LBS/CU. FT.
ATTRIBUTES PLASTIC, METAL
ELEMENTS PRESENT .. IRON OXIDE,FE,CU
COMPOSITION TEFLON
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 5.00
DAILY RATE 0.00
UNIT WEIGHT 5.00
RECLAMATION ACTION .. REPLACE

S/C SUBSYSTEM DATA COLLECTION, STORAGE AND DISPLAY
GROUP KEY 2.5.1

** EQUIPMENT/EXPERIMENT NO. 1 DATA MANAGEMENT-ELECTRONIC

*** WASTE SOURCE NO. 1 DATA MANAGEMENT-ELECTRONIC

***** WASTE ITEM NO. 5 TAPE TRANSPORTS

STATE SOLID

DENSITY 42.00 LBS/CU. FT.

ATTRIBUTES METAL, DENSE

ELEMENTS PRESENT .. FE, CU

COMPOSITION

GENERATION DATA ...

QUANTITY (LBS)

10 YR. TOTAL 101.60

DAILY RATE 0.00

UNIT WEIGHT 40.00

RECLAMATION ACTION .. REPLACE

***** WASTE ITEM NO. 6 CIRCUIT BOARD

STATE SOLID, RIGID, SHEET

DENSITY 50.00 LBS/CU. FT.

ATTRIBUTES PLASTIC, METAL

ELEMENTS PRESENT .. AL, CU

COMPOSITION PHENOLIC, FIBERGLASS, SILICON

GENERATION DATA ...

QUANTITY (LBS)

10 YR. TOTAL 9.00

DAILY RATE 0.00

UNIT WEIGHT 0.25

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 7 SENSOR

STATE SOLID

DENSITY 50.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. UNKNOWN

COMPOSITION UNKNOWN

GENERATION DATA ...

QUANTITY (LBS)

10 YR. TOTAL 52.50

DAILY RATE 0.00

UNIT WEIGHT 0.25

RECLAMATION ACTION .. REPLACE

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RUN NO. ** 2 **

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S/C SUBSYSTEM DATA COLLECTION, STORAGE AND DISPLAY
GROUP KEY 2.5.1

** EQUIPMENT/EXPERIMENT NO. 1 DATA MANAGEMENT-ELECTRONIC

*** WASTE SOURCE NO. 1 DATA MANAGEMENT-ELECTRONIC

***** WASTE ITEM NO. 8 CATHODE RAY TUBE

STATE SOLID

DENSITY 2.00 LBS/CU. FT.

ATTRIBUTES GLASS, FRAGILE, DANGEROUS

ELEMENTS PRESENT .. SiO₂, Fe

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 17.50

DAILY RATE 0.00

UNIT WEIGHT 2.00

RECLAMATION ACTION .. REPLACE

***** WASTE ITEM NO. 9 KEYBOARD TERMINAL

STATE SOLID

DENSITY 40.00 LBS/CU. FT.

ATTRIBUTES PLASTIC, SEMI-COND, RIGID

ELEMENTS PRESENT .. Al, Cu

COMPOSITION PHENOLIC, SILICON

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 6.75

DAILY RATE 0.00

UNIT WEIGHT 6.75

RECLAMATION ACTION .. REPAIR

** MANNED SPACECRAFT WASTE GENERATION DATA **

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RUN NO. ** 2 **

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S/C SUBSYSTEM DATA COLLECTION, STORAGE AND DISPLAY
GROUP KEY 2.5.1

** EQUIPMENT/EXPERIMENT NO. 2 DATA MANAGEMENT-PHOTOGRAPHIC

S/C AREAS PHOTOGRAPHIC SUPPORT

*** WASTE SOURCE NO. 1 DATA MANAGEMENT - PHOTOGRAPHIC

DOCUMENT NO. 2.5.1.2.1

REFERENCE NO. 1 .. MEES C.E.K. THE THEORY OF THE PHOTOGRAPHIC
PROCESS- THE MACMILLAN COMPANY 195
9, ROCHESTER, N.Y.

REFERENCE NO. 2 .. GUNDERSEN, ROBT. T. EARTH-ORBITING SPACE
-BASE CREW SKILLS ASSESSMENT. NASA, M.S.
C, HOUSTON, TEXAS. NASA TM X-1982. APRIL
1970

*** WASTE ITEM NO. 1 EXHAUSTED DEVELOPING CHEMICALS

STATE LIQUID

DENSITY 63.00 LBS/CU. FT.

ATTRIBUTES CAUSTIC

ELEMENTS PRESENT .. SODIUM THIOSULFATE

COMPOSITION

GENERATION DATA ...

QUANTITY (LBS)

10 YR. TOTAL

25550.00

DAILY RATE

7.00

UNIT WEIGHT

14.00

RECLAMATION ACTION ..

*** WASTE ITEM NO. 2 EMPTY FILM CARTRIDGES

STATE SOLID

DENSITY 10.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT ..

COMPOSITION STEEL

GENERATION DATA ...

QUANTITY (LBS)

10 YR. TOTAL

25550.00

DAILY RATE

7.00

UNIT WEIGHT

0.70

RECLAMATION ACTION .. REFILL WITH FILM

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM DATA COLLECTION, STORAGE AND DISPLAY
GROUP KEY 2.5.1

** EQUIPMENT/EXPERIMENT NO. 2 DATA MANAGEMENT-PHOTOGRAPHIC
**** WASTE SOURCE NO. 1 DATA MANAGEMENT - PHOTOGRAPHIC

***** WASTE ITEM NO. 3 DISCARDED PICTURES
STATE SOLID
DENSITY 25.00 LBS/CU. FT.
ATTRIBUTES PLASTIC, CAUSTIC
ELEMENTS PRESENT ..
COMPOSITION SILVER HALIDE, MYLAR, GELATINE
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 2550.00
DAILY RATE 0.70
UNIT WEIGHT 0.00
RECLAMATION ACTION .. CLEAN,

***** WASTE ITEM NO. 4 EDITING FILM SCRAPS
STATE SOLID
DENSITY 10.00 LBS/CU. FT.
ATTRIBUTES PLASTIC, CAUSTIC
ELEMENTS PRESENT ..
COMPOSITION SILVER HALIDE GRAINS IN GELITIN ON MYLAR
GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 2550.00
DAILY RATE 0.70
UNIT WEIGHT 0.00
RECLAMATION ACTION .. CLEAN, FRESH EMULSION

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM ASTRONOMY AND ASTROPHYSICS
GROUP KEY 3.1.1

BASIC FUNCTION PERFORM MISSION TASKS
FUNCTIONAL REQUIREMENT ASTRONOMY,ASTROPHYSICS & CELESTIAL
MECHANICS STUDIES & TASKS

PHYSICS AND CHEMISTRY STUDIES/TASKS

S/C SUBSYSTEM PHYSICS

GROUP KEY 3.2.1

BASIC FUNCTION PERFORM MISSION TASKS

FUNCTIONAL REQUIREMENT PHYSICS AND CHEMISTRY STUDIES AND TASKS

** EQUIPMENT/EXPERIMENT NO. 1 PLASMA PHYSICS

ASSOCIATED FPE NUMBER ... 5.7

S/C AREAS LABORATORY
REMOTE SATELLITE

**** WASTE SOURCE NO. 1 PLASMA WAKE EXPERIMENTS

DOCUMENT NO. 3.2.1.1.1

REFERENCE NO. 1 .. SAMIR, V. SPACECRAFT/SPACE PLASMA INTERACTION, SPACEFLIGHT VCL. 10 NO. 8

REFERENCE NO. 2 .. SINGER, S.F. (EDITOR) INTERACTION OF SPACE VEHICLES WITH AN IONIZED ATMOSPHERE, PERGAMON PRESS, 1965.

***** WASTE ITEM NO. 1 CANISTER AND PACKING

STATE SOLID

DENSITY 50.00 LBS/CU. FT.

ATTRIBUTES RIGID, TUBE

ELEMENTS PRESENT ..

COMPOSITION PLASTIC

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 30.00

DAILY RATE 0.00

BATCH SIZE 10.00

RECLAMATION ACTION .. USE AS IS

***** WASTE ITEM NO. 2 INFLATABLE SPHERE

STATE SOLID

DENSITY 35.00 LBS/CU. FT.

ATTRIBUTES PLASTIC, SHEET

ELEMENTS PRESENT ..

COMPOSITION MYLAR

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 90.00

DAILY RATE 0.00

BATCH SIZE 45.00

RECLAMATION ACTION .. RECAPTURE & REPAIR

S/C SUBSYSTEM PHYSICS
GROUP KEY 3.2.1

** EQUIPMENT/EXPERIMENT NO. 1 PLASMA PHYSICS
*** WASTE SOURCE NO. 1 PLASMA WAKE EXPERIMENTS

***** WASTE ITEM NO. 3 INFLATABLE CYLINDER
STATE SOLID
DENSITY 35.00 LBS/CU. FT.
ATTRIBUTES PLASTIC, SHEET
ELEMENTS PRESENT ..
COMPOSITION MYLAR
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 57.00
DAILY RATE 0.00
BATCH SIZE 57.00
RECLAMATION ACTION .. RECAPTURE & REPAIR

***** WASTE ITEM NO. 4 LANGMUIR PROBE, DAMAGED
STATE SOLID
DENSITY 300.00 LBS/CU. FT.
ATTRIBUTES METAL, PLASTIC, ROD
ELEMENTS PRESENT .. FE
COMPOSITION TEFLON
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.10
DAILY RATE 0.00
BATCH SIZE 0.10
RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 5 MAGNETIC TAPE
STATE SOLID
DENSITY 70.00 LBS/CU. FT.
ATTRIBUTES PLASTIC RIBBON ON SPCOL
ELEMENTS PRESENT .. FE
COMPOSITION MYLAR
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 2.50
DAILY RATE 0.00
BATCH SIZE 2.50
RECLAMATION ACTION .. ERASE, SPLICE

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM PHYSICS
GROUP KEY 3.2.1

** EQUIPMENT/EXPERIMENT NO. 1 PLASMA PHYSICS
*** WASTE SOURCE NO. 1 PLASMA WAKE EXPERIMENTS

***** WASTE ITEM NO. 6 POLAROID PICTURES
STATE SOLID
DENSITY 58.00 LBS/CU. FT.
ATTRIBUTES PAPER, CHEMICALS, SHEET
ELEMENTS PRESENT .. SILVER
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.80
DAILY RATE 0.02
BATCH SIZE 0.01
RECLAMATION ACTION .. NONE

***** WASTE ITEM NO. 7 POLAROID FILM SCRAP
STATE SOLID
DENSITY 30.00 LBS/CU. FT.
ATTRIBUTES PAPER, SHEET, CHEMICALS
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE, DEVELOPER
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 7.20
DAILY RATE 0.18
BATCH SIZE 0.07
RECLAMATION ACTION .. NONE

***** WASTE ITEM NO. 8 PLGTTING PAPER
STATE SOLID
DENSITY 35.00 LBS/CU. FT.
ATTRIBUTES SHEET
ELEMENTS PRESENT ..
COMPOSITION PAPER
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 5.00
DAILY RATE 0.13
BATCH SIZE 0.00
RECLAMATION ACTION .. NONE

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RUN NO. 2

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S/C SUBSYSTEM PHYSICS
GROUP KEY 3.2.1

** EQUIPMENT/EXPERIMENT NO. 1 PLASMA PHYSICS
*** WASTE SOURCE NO. 1 PLASMA WAKE EXPERIMENTS

*** WASTE ITEM NO. 9 PROPELLANT
STATE GAS
DENSITY 65.00 LBS/CU. FT.
ATTRIBUTES TOXIC, CORROSIVE, UNSTABLE
ELEMENTS PRESENT ..
COMPOSITION N2H4
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 22.00
DAILY RATE 0.50
BATCH SIZE 22.00
RECLAMATION ACTION .. AGNE

** MANNED SPACECRAFT WASTE GENERATION DATA **

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RUN NO. ** 2 **

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S/C SUBSYSTEM PHYSICS
GROUP KEY 3.2.1

** EQUIPMENT/EXPERIMENT NO. 1 PLASMA PHYSICS

**** WASTE SOURCE NO. 2 CYCLOTRON HARMONIC WAVE TRANSMISSION EXP
ERIMENT

DOCUMENT NO. 3.2.1.1.2

**** ** WASTE ITEM NO. 1 MAGNETIC TAPE

STATE SOLID

DENSITY 70.00 LBS/CU. FT.

ATTRIBUTES PLASTIC RIBBON ON SPOOL

ELEMENTS PRESENT .. FE

COMPOSITION MYLAR

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 7.50

DAILY RATE 0.00

BATCH SIZE 2.50

RECLAMATION ACTION .. ERASE, SPLICE

S/C SUBSYSTEM PHYSICS

GROUP KEY 3.2.1

** EQUIPMENT/EXPERIMENT NO. 2 COSMIC RAY PHYSICS

ASSOCIATED FPE NUMBER ... 5.8

S/C AREAS WORK AREA AIRLOCK

ATTACHED MODULE

*** WASTE SOURCE NO. 1 INTERACTION PHYSICS EXPERIMENTS (BAY 1)

DOCUMENT NO. 3.2.1.2.1

*** WASTE ITEM NO. 1 CRYOGENIC LIQUID

STATE LIQUID

DENSITY 8.00 LBS/CU. FT.

ATTRIBUTES COLD

ELEMENTS PRESENT .. HELIUM, NITROGEN

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 100.00

DAILY RATE 0.00

BATCH SIZE 100.00

RECLAMATION ACTION .. RECYCLED

*** WASTE ITEM NO. 2 CRYOGENIC LIQUID PACKAGING

STATE SOLID

DENSITY 0.40 LBS/CU. FT.

ATTRIBUTES CYLINDER

ELEMENTS PRESENT ..

COMPOSITION METAL, VACUUM

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 5.00

DAILY RATE 0.00

BATCH SIZE 5.00

RECLAMATION ACTION ..

*** WASTE ITEM NO. 3 LIQUID HYDROGEN

STATE LIQUID

DENSITY 8.00 LBS/CU. FT.

ATTRIBUTES COLD, DANGEROUS

ELEMENTS PRESENT .. HYDROGEN, NITROGEN

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 500.00

DAILY RATE 0.00

BATCH SIZE 500.00

RECLAMATION ACTION .. RECYCLED

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RUN NO. ** 2 **

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S/C SUBSYSTEM PHYSICS
GROUP KEY 3.2.1

** EQUIPMENT/EXPERIMENT NO. 2 COSMIC RA/ PHYSICS
*** WASTE SOURCE NO. 1 INTERACTION PHYSICS EXPERIMENTS (BAY 1)

***** WASTE ITEM NO. 4 LIQUID HYDROGEN PACKAGING
STATE SOLID
DENSITY 0.20 LBS/CU. FT.
ATTRIBUTES CYLINDER
ELEMENTS PRESENT ..
COMPOSITION METAL VACUUM
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 25.00
DAILY RATE 0.00
BATCH SIZE 25.00
RECLAMATION ACTION ..

✓ ***** WASTE ITEM NO. 5 EMULSION PLATES
STATE LIQUID , SOLID
DENSITY 40.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 75.00
DAILY RATE 0.00
BATCH SIZE 75.00
RECLAMATION ACTION ..

***** WASTE ITEM NO. 6 EMULSION PLATES PACKAGING
STATE SOLID
DENSITY 25.00 LBS/CU. FT.
ATTRIBUTES RADIATION TIGHT
ELEMENTS PRESENT .. LEAD
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 4.00
DAILY RATE 0.00
BATCH SIZE 4.00
RECLAMATION ACTION ..

S/C SUBSYSTEM PHYSICS
GROUP KEY 3.2.1

** EQUIPMENT/EXPERIMENT NO. 2 COSMIC RAY PHYSICS
*** WASTE SOURCE NO. 1 INTERACTION PHYSICS EXPERIMENTS (RAY 1)

***** WASTE ITEM NO. 7 MAGNETIC TAPES
STATE SOLID
DENSITY 70.00 LBS/CU. FT.
ATTRIBUTES PLASTIC, RIBBON ON SPOOL
ELEMENTS PRESENT .. FE
COMPOSITION MYLAR
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 5.00
DAILY RATE 0.00
BATCH SIZE 2.50
RECLAMATION ACTION .. ERASE, SPLICE

***** WASTE ITEM NO. 8 ELECTRONIC MODULE
STATE SOLID
DENSITY 25.00 LBS/CU. FT.
ATTRIBUTES CUBIC, SEMICONDUCTOR, METAL
ELEMENTS PRESENT ..
COMPOSITION METAL, PLASTIC
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 50.00
DAILY RATE 0.00
BATCH SIZE 50.00
RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 9 POLAROID FILM
STATE SOLID
DENSITY 58.00 LBS/CU. FT.
ATTRIBUTES PAPER, CHEMICAL, SHEET
ELEMENTS PRESENT .. SILVER
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.50
DAILY RATE 0.00
BATCH SIZE 0.01
RECLAMATION ACTION .. NONE

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RUN NO. ** 2 **

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S/C SUBSYSTEM PHYSICS
GROUP KEY 3.2.1

** EQUIPMENT/EXPERIMENT NO. 2 COSMIC RAY PHYSICS
**** WASTE SOURCE NO. 1 INTERACTION PHYSICS EXPERIMENTS (BAY 1)

***** WASTE ITEM NO. 10 POLAROID FILM SCRAP
STATE SOLID
DENSITY 30.00 LBS/CU. FT.
ATTRIBUTES PAPER, CHEMICAL, SHEET
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE, SILVER DEVELOPER
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 4.50
DAILY RATE 0.00
BATCH SIZE 0.08
RECLAMATION ACTION .. NONE

**** * WASTE ITEM NO. 11 DATA PAPER
STATE SOLID
DENSITY 58.00 LBS/CU. FT.
ATTRIBUTES PAPER, SHEET
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 2.50
DAILY RATE 0.00
BATCH SIZE 2.50
RECLAMATION ACTION .. NONE

***** WASTE ITEM NO. 12 REPLACEMENT MICROFILM
STATE SOLID
DENSITY 50.00 LBS/CU. FT.
ATTRIBUTES SOLID, CELLULOSE, CHEMICAL, SHEET
ELEMENTS PRESENT ..
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 5.00
DAILY RATE 0.00
BATCH SIZE 5.00
RECLAMATION ACTION ..

S/C SUBSYSTEM PHYSICS
GROUP KEY 3.2.1

** EQUIPMENT/EXPERIMENT NO. 2 COSMIC RAY PHYSICS

*** WASTE SOURCE NO. 2 HIGH ENERGY PRIMARY COSMIC RAY EXPERIMEN
T (BAYS 2 AND 3)
DOCUMENT NO. 3.2.1.2.2

***** WASTE ITEM NO. 1 SPARK CHAMBER GASES

STATE GASEOUS

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES STORED

ELEMENTS PRESENT .. NEON, HELIUM

COMPOSITION

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 0.00

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. RECOMPRESS

***** WASTE ITEM NO. 2 PRESSURIZED CONTAINER

STATE SOLID

DENSITY 50.00 LBS/CU. FT.

ATTRIBUTES METAL, CYLINDER

ELEMENTS PRESENT .. FE

COMPOSITION

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 250.00

DAILY RATE 0.00

BATCH SIZE 50.00

RECLAMATION ACTION .. REFILLED

***** WASTE ITEM NO. 3 ELECTRONIC MODULE

STATE SOLID

DENSITY 25.00 LBS/CU. FT.

ATTRIBUTES CUBIC, SEMICONDUCTORS, METAL

ELEMENTS PRESENT ..

COMPOSITION METAL, PLASTIC

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 50.00

DAILY RATE 0.00

BATCH SIZE 50.00

RECLAMATION ACTION .. REPAIR

S/C SUBSYSTEM PHYSICS
GROUP KEY 3.2.1

** EQUIPMENT/EXPERIMENT NO. 2 COSMIC RAY PHYSICS
*** WASTE SOURCE NO. 2 HIGH ENERGY PRIMARY COSMIC RAY EXPERIMENT (BAYS 2 AND 3)

***** WASTE ITEM NO. 4 MAGNETIC TAPE
STATE SOLID
DENSITY 70.00 LBS/CU. FT.
ATTRIBUTES PLASTIC RIBBON ON SPOOL
ELEMENTS PRESENT .. FE
COMPOSITION MYLAR
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 5.00
DAILY RATE 0.00
BATCH SIZE 2.50
RECLAMATION ACTION .. ERASE, SPLICE

***** WASTE ITEM NO. 5 POLAROID FILM
STATE SOLID
DENSITY 5.80 LBS/CU. FT.
ATTRIBUTES PAPER, CHEMICAL, SHEETS
ELEMENTS PRESENT .. SILVER
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.50
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 6 FILM SCRAP
STATE SOLID
DENSITY 30.00 LBS/CU. FT.
ATTRIBUTES PAPER, CHEMICAL SHEET
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE, SILVER DEVELOPER
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 4.50
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

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RUN NO. ** 2 **

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S/C SUBSYSTEM PHYSICS
GROUP KEY 3.2.1

** EQUIPMENT/EXPERIMENT NO. 2 COSMIC RAY PHYSICS
*** WASTE SOURCE NO. 2 HIGH ENERGY PRIMARY COSMIC RAY EXPERIMENT (BAYS 2 AND 3)

***** WASTE ITEM NO. 7 DATA PAPER
STATE SOLID
DENSITY 58.00 LBS/CU. FT.
ATTRIBUTES PAPER, SHEET
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 2.50
DAILY RATE 0.00
BATCH SIZE 2.50
RECLAMATION ACTION .. N/R

S/C SUBSYSTEM CHEMISTRY

GROUP KEY 3.2.2

BASIC FUNCTION PERFORM MISSION TASKS
FUNCTIONAL REQUIREMENT PHYSICS AND CHEMISTRY STUDIES AND TASKS

** EQUIPMENT/EXPERIMENT NO. 1 UNIT SEPARATION PROCESSES IN SPACE
CE

ASSOCIATED FPE NUMBER ...
S/C AREAS LABORATORY

**** WASTE SOURCE NO. 1 UNIT SEPARATION PROCESSES IN SPACE

DOCUMENT NO. 3.2.2.1.1*

REFERENCE NO. 1 .. SPACE PROCESSING AND MANUFACTURING NASA
GEORGE C. MARSHALL SPACE FLIGHT CENTER --
OCT. 21, 1969-ME-69-1

REFERENCE NO. 2 .. APPROVED LABORATORY TECHNIQUE-5TH EDITION
1951, KOLMER J.A., SPAULDING E.H., AND
ROBINSON H.W., APPLETON-CENTURY-CROFTS INC.

***** WASTE ITEM NO. 1 MICROORGANISM+DISTILLED WATER+TUBE

STATE SOLID
DENSITY 8.64 LBS/CU. FT.
ATTRIBUTES ORGANIC
ELEMENTS PRESENT ..
COMPOSITION BOROSILICATES
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.04
DAILY RATE 0.00
BATCH SIZE 0.02
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 MEDIA IN TUBES

STATE SOLID
DENSITY 86.40 LBS/CU. FT.
ATTRIBUTES GEL + PLASTIC CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION GEL + POLYSTYRENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 6.24
DAILY RATE 0.00
BATCH SIZE 0.12
RECLAMATION ACTION .. N/R

S/C SUBSYSTEM CHEMISTRY
GROUP KEY 3.2.2

** EQUIPMENT/EXPERIMENT NO. 1 UNIT SEPARATION PROCESSES IN SPACE
CE

*** WASTE SOURCE NO. 1 UNIT SEPARATION PROCESSES IN SPACE

***** WASTE ITEM NO. 3 SALINE IN TUBES

STATE SOLID
DENSITY 86.40 LBS/CU. FT.
ATTRIBUTES SALINE + PLASTIC CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION SALINE + POLYSTYRENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 8.32
DAILY RATE 0.00
BATCH SIZE 0.16
RECLAMATION ACTION .. N/R

*** WASTE ITEM NO. 4 SYRINGES

STATE SOLID
DENSITY 35.60 LBS/CU. FT.
ATTRIBUTES PLASTIC CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE -
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 2.35
DAILY RATE 0.00
BATCH SIZE 0.03
RECLAMATION ACTION .. N/R

*** WASTE ITEM NO. 5 INNOCULATING NEEDLES

STATE SOLID
DENSITY 1.70 LBS/CU. FT.
ATTRIBUTES PLASTIC CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.52
DAILY RATE 0.00
BATCH SIZE 0.01
RECLAMATION ACTION .. N/R

S/C SUBSYSTEM CHEMISTRY
GROUP KEY 3.2.2

** EQUIPMENT/EXPERIMENT NO. 1 UNIT SEPARATION PROCESSES IN SPACE

*** WASTE SOURCE NO. 1 UNIT SEPARATION PROCESSES IN SPACE

***** WASTE ITEM NO. 6 POTASSIUM PHOSPHATE-BUFFER CONTAINER

STATE SOLID

DENSITY 8.00 LBS/CU. FT.

ATTRIBUTES PLASTIC CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYSTYRENE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 2.40

DAILY RATE 0.00

BATCH SIZE 0.02

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 7 PACKAGING MATERIAL

STATE SOLID

DENSITY 0.08 LBS/CU. FT.

ATTRIBUTES PLASTIC + PAPER CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE + POLYETHELENE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.04

DAILY RATE 0.00

BATCH SIZE 0.02

RECLAMATION ACTION .. REUSE AS IS

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RUN NO. ** 2 **

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S/C SUBSYSTEM CHEMISTRY
GROUP KEY 3.2.2

** EQUIPMENT/EXPERIMENT NO. 2 INDUSTRIAL MICROBIOLOGICAL APPLI
CATIONS IN DG

ASSOCIATED FPE NUMBER ...
S/C AREAS LABORATORY

*** WASTE SOURCE NO. 1 A VACCINE SATELLITE PROGRAM

DOCUMENT NO. 3.2.2.2.1

REFERENCE NO. 1 .. SPACE PROCESSING AND MANUFACTURING, OCTO
BER 21, 1969, ME 69-1, NASA. GEORGE C. MA
RSHALL SPACE FLIGHT CENTER.

AGRICULTURE AND ANIMAL HOUSING STUDIES/TASKS

S/C SUBSYSTEM PLANT CROPS

GROUP KEY 3.3.1

BASIC FUNCTION PERFORM MISSION TASKS

FUNCTIONAL REQUIREMENT AGRICULTURE AND ANIMAL HUSBANDRY

** EQUIPMENT/EXPERIMENT NO. 1 RAPID LETTUCE GROWTH

ASSOCIATED FPE NUMBER ...

S/C AREAS AGRICULTURAL STUDY AREA

REMOTE DECKABLE MODULE

*** WASTE SOURCE NO. 1 RAPID LETTUCE GROWTH

DOCUMENT NO. 3.3.1.1.1

REFERENCE NO. 1 .. RAD TRIP REPORT 634.699.50X10, PLANT AND
ANIMAL STUDIES

REMARKS { 1 } 25- 40 DAYS PER CROP

*** ** WASTE ITEM NO. 1 PLANT RESIDUE

STATE ORGANIC MATTER

DENSITY 22.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE, PLANT PROTEIN, MINERALS

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.00

DAILY RATE 0.04

BATCH SIZE 0.04

RECLAMATION ACTION .. N/R

*** ** WASTE ITEM NO. 2 CONTAINER

STATE

DENSITY 83.60 LBS/CU. FT.

ATTRIBUTES PLASTIC TRAY

ELEMENTS PRESENT ..

COMPOSITION COPOLYVINYL CHLORIDE ACETATE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 4.00

DAILY RATE 0.00

BATCH SIZE 4.00

RECLAMATION ACTION .. CLEANSING

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RUN NO. ** 2 **

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S/C SUBSYSTEM PLANT CROPS
GROUP KEY 3.3.1

** EQUIPMENT/EXPERIMENT NO. 1 RAPID LETTUCE GROWTH

*** WASTE SOURCE NO. 1 RAPID LETTUCE GROWTH

*** *****

***** WASTE ITEM NO. 3 VERMICULITE

STATE SOLID

DENSITY 10.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION MINERALS

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 5.00

DAILY RATE 0.00

BATCH SIZE 5.00

RECLAMATION ACTION .. SIFTING

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM PLANT CROPS

GROUP KEY 3.3.1

** EQUIPMENT/EXPERIMENT NO. 2 NO WASTE FOOD RADISH/CABBAGE

ASSOCIATED FPE NUMBER ...

S/C AREAS

*** WASTE SOURCE NO. 1 NO WASTE FOOD RADISH/CABBAGE

DOCUMENT NO. 3.3.1.2.1

REFERENCE NO. 1 .. RAD TRIP REPORT 634.699.50X10, PLANT AND
ANIMAL STUDIES

REMARKS (1) INDEFINATE GROWTH

***** WASTE ITEM NO. 1 CONTAINER

STATE

DENSITY 83.60 LBS/CU. FT.

ATTRIBUTES PLASTIC TRAY

ELEMENTS PRESENT ..

COMPOSITION COPOLYVINYL CHLORIDE- ACETATE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 4.00

DAILY RATE 0.00

BATCH SIZE 4.00

RECLAMATION ACTION .. CLEANSING

***** WASTE ITEM NO. 2 VERMICULITE

STATE SOLID PARTICLES

DENSITY 10.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION SIC2,MGO,AL2O3,FE2O3,K2O,CAO,H2O

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 4.00

DAILY RATE 0.00

BATCH SIZE 4.00

RECLAMATION ACTION .. CLEANSING

** MANNED SPACECRAFT WASTE GENERATION DATA **

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RUN NO. ** 2 **

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S/C SUBSYSTEM PLANT CROPS
GROUP KEY 3.3.1

** EQUIPMENT/EXPERIMENT NO. 2 NO WASTE FOOD RADISH/CABBAGE
**** WASTE SOURCE NO. 1 NO WASTE FOOD RADISH/CABBAGE

***** WASTE ITEM NO. 3 PLANT DEBRIS
STATE ORGANIC BITS
DENSITY 22.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT .. C6 H10 O5
COMPOSITION CELLULOSE TRACE MINERALS
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.00
DAILY RATE 0.00
BATCH SIZE 0.02
RECLAMATION ACTION .. MULCH

** MANNED SPACECRAFT WASTE GENERATION DATA **

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RUN NO. ** 2 **

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S/C SUBSYSTEM PLANT CROPS

GROUP KEY 3.3.1

** EQUIPMENT/EXPERIMENT NO. 3 INCREASED CO2 ON FOOD PLANTS

ASSOCIATED FPE NUMBER ...

S/C AREAS

*** WASTE SOURCE NO. 1 INCREASED CO2 ON FOOD PLANTS

DOCUMENT NO. 3.3.1.3.1

REFERENCE NO. 1 .. RAD TRIP REPORT 634.699.50X10, PLANT AND
ANIMAL STUDIES

REMARKS (1) INDEFINITE PERIOD

***** WASTE ITEM NO. 1 PLANT DEBRIS
STATE ORGANIC BITS
DENSITY 22.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT .. CELLULOSE
COMPOSITION PLANT PROTIEN
GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

0.00

DAILY RATE

0.00

BATCH SIZE

0.00

RECLAMATION ACTION .. MULCH

***** WASTE ITEM NO. 2 CONTAINERS
STATE
DENSITY 83.60 LBS/CU. FT.
ATTRIBUTES PLASTIC TRAYS
ELEMENTS PRESENT ..
COMPOSITION COPOLYVINYL CHLORIDE ACETATE
GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

0.00

DAILY RATE

0.00

BATCH SIZE

0.00

RECLAMATION ACTION .. CLEANSING

** MANNED SPACECRAFT WASTE GENERATION DATA **

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RUN NO: ** 2 **

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S/C SUBSYSTEM PLANT CROPS
GROUP KEY 3.3.1

** EQUIPMENT/EXPERIMENT NO. 3 INCREASED CO2 ON FOOD PLANTS
*** WASTE SOURCE NO. 1 INCREASED CO2 ON FOOD PLANTS

***** WASTE ITEM NO. 3 VERMICULITE
STATE SOLID PARTICLES
DENSITY 10.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION MINERALS
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.00
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. SIFTING

***** WASTE ITEM NO. 4 CARBON DIOXIDE
STATE GAS
DENSITY 12.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT .. CO2
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.00
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. SCRUBBER AND EXTRACTOR

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM ANIMAL CPOPS
GROUP KEY 3.3.2

BASIC FUNCTION PERFORM MISSION TASKS
FUNCTIONAL REQUIREMENT AGRICULTURE AND ANIMAL HUSBANDRY

** EQUIPMENT/EXPERIMENT NO. 1 JAPANESE QUAIL (COLINUS)

ASSOCIATED FPE NUMBER ...
S/C AREAS ANIMAL HOUSING

**** WASTE SOURCE NO. 1 JAPANESE QUAIL (COLINUS)

DOCUMENT NO. 3.3.2.1.1*

REFERENCE NO. 1 .. RAD TRIP REPORT 634.699.50 X 10, PLANT A
ND ANIMAL STUDIES, USDA 27 APRIL 1970.

***** WASTE ITEM NO. 1 LITTER

STATE SOLID
DENSITY 43.00 LBS/CU. FT.

ATTRIBUTES
ELEMENTS PRESENT .. ORGANIC CHO
COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.00

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 FOOD SCRAPS

STATE SOLID
DENSITY 95.00 LBS/CU. FT.

ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION ORGANIC

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.00

DAILY RATE 0.01

BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

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RUN NO. ** 2 **

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S/C SUBSYSTEM ANIMAL CROPS
GROUP, KEY 3.3.2

** EQUIPMENT/EXPERIMENT NO. 1 JAPANESE QUAIL (COLINUS)

*** WASTE SOURCE NO. 1 JAPANESE QUAIL (COLINUS)

***** WASTE ITEM NO. 3 FECES

STATE SEMI SOLID

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION NORMAL

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 5.00

DAILY RATE 0.06

BATCH SIZE 0.06

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 4 URINE

STATE LIQUID

DENSITY 63.70 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION NORMAL

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 12.00

DAILY RATE 0.15

BATCH SIZE 0.15

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 5 FOOD AND FEATHER DUST

STATE SOLID, AEROSOL

DENSITY 65.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION VARIED

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 0.50

DAILY RATE 0.01

BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/G SUBSYSTEM ANIMAL CROPS
GROUP KEY 3.3.2

** EQUIPMENT/EXPERIMENT NO. 1 JAPANESE QUAIL (COLINUS)

*** WASTE SOURCE NO. 1 JAPANESE QUAIL (COLINUS)

***** WASTE ITEM NO. 6 FEATHERS

STATE SOLID

DENSITY 6.50 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION PROTEIN

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 0.50

DAILY RATE 0.01

BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 7 AMMONIA

STATE GAS

DENSITY 0.04 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT .. NH3

COMPOSITION

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 0.10

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. ENTRAP

***** WASTE ITEM NO. 8 CARBON DIOXIDE

STATE GAS

DENSITY 0.12 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT .. CO2

COMPOSITION

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 0.25

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. SCRUBBER AND EXTRACTOR

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RUN NO. ** 2 **

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S/C SUBSYSTEM ANIMAL CROPS
GROUP KEY 3.3.2

** EQUIPMENT/EXPERIMENT NO. 1 JAPANESE QUAIL (COLINUS)

*** WASTE SOURCE NO. 1 JAPANESE QUAIL (COLINUS)

***** WASTE ITEM NO. 9 EGG SHELLS

STATE SOLID BITS

DENSITY 128.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT .. CA,P,FE

COMPOSITION

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 0.70

DAILY RATE 0.00

BATCH SIZE 0.35

RECLAMATION ACTION .. GRIND-ADD TO FOOD

BIOLOGICAL SCIENCES AND BIOTECHNOLOGY STUDIES

S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C)
 GROUP KEY 3.4.1

BASIC FUNCTION PERFORM MISSION TASKS
 FUNCTIONAL REQUIREMENT BIOLOGICAL SCIENCES AND BIOTECHNOLOGY STUDIES

** EQUIPMENT/EXPERIMENT NO. 1 THE ROLE OF GRAVITY IN GENERAL CELLULAR FUNCTION

ASSOCIATED FPE NUMBER ... 5.25
 S/C AREAS BIO-LABORATORY

**** WASTE SOURCE NO. 1 GENERAL GROWTH BEHAVIOR AND REPRODUCTION IN CELLS
 DOCUMENT NO. 3.4.1.1.1

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH ORBITAL MISSION, REVISION, SEPTEMBER 1968, NASA OMSF.

REFERENCE NO. 2 .. BIOLOGY - 1960, ELLIOT, A.M., RAY, C., APPELTON-CENTURY-CROFTS INC.

***** WASTE ITEM NO. 1 CONTAINER
 STATE SOLID
 DENSITY 8.00 LBS/CU. FT.
 ATTRIBUTES PLASTIC CONTAMINATED
 ELEMENTS PRESENT ..
 COMPOSITION POLYSTYRENE
 GENERATION DATA ... QUANTITY (LBS)
 EXPT. TOTAL 0.60
 DAILY RATE 0.00
 BATCH SIZE 0.20
 RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 2 GROWTH MEDIUM
 STATE LIQUID
 DENSITY 62.00 LBS/CU. FT.
 ATTRIBUTES MIXTURE, CONTAMINATED, ORGANIC
 ELEMENTS PRESENT .. HYDROGEN, OXYGEN
 COMPOSITION
 GENERATION DATA ... QUANTITY (LBS)
 EXPT. TOTAL 0.30
 DAILY RATE 0.00
 BATCH SIZE 0.10
 RECLAMATION ACTION .. N/R

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RUN NO. ** 2 **

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S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C)
GROUP, KEY 3.4.1

** EQUIPMENT/EXPERIMENT NO. 1 THE ROLE OF GRAVITY IN GENERAL C
CELLULAR FUNCTION

*** WASTE SOURCE NO. 1 GENERAL GROWTH BEHAVIOR AND REPRODUCTION
IN CELLS

*** WASTE ITEM NO. 3 CONGO RED, YEAST, BOTTLE

STATE SOLID
DENSITY 52.24 LBS/CU. FT.
ATTRIBUTES GLASS, ORGANIC, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION BOROSILICATES
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.12
DAILY RATE 0.00
BATCH SIZE 0.04

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 4 ACETIC ACID, BOTTLE

STATE SOLID
DENSITY 52.27 LBS/CU. FT.
ATTRIBUTES GLASS, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION BOROSILICATES
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.12
DAILY RATE 0.00
BATCH SIZE 0.04

RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 5 STAIN, BOTTLE

STATE SOLID
DENSITY 52.27 LBS/CU. FT.
ATTRIBUTES GLASS, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION BOROSILICATES
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.12
DAILY RATE 0.00
BATCH SIZE 0.04

RECLAMATION ACTION .. WASH

11/30/70

RUN NO. ** 2 *

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S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C)

GROUP KEY 3.4.1

** EQUIPMENT/EXPERIMENT NO. 1 THE ROLE OF GRAVITY IN GENERAL C
CELLULAR FUNCTION

*** WASTE SOURCE NO. 1 GENERAL GROWTH BEHAVIOR AND REPRODUCTION
IN CELLS

***** WASTE ITEM NO. 6 PASTEUR PIPETTE

STATE SOLID

DENSITY 17.28 LBS/CU. FT.

ATTRIBUTES GLASS, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION BOROSILICATES

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.90

DAILY RATE 0.01

BATCH SIZE 0.00

RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 7 PIPETTE BULB

STATE SOLID

DENSITY 59.00 LBS/CU. FT.

ATTRIBUTES RUBBER, CONTAMINATED

ELEMENTS PRESENT .. SILICONES

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.04

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. REUSE AS IS

***** WASTE ITEM NO. 8 STYLES-MOORE CHAMBER

STATE SOLID

DENSITY 8.64 LBS/CU. FT.

ATTRIBUTES GLASS, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION BOROSILICATES

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.80

DAILY RATE 0.02

BATCH SIZE 0.00

RECLAMATION ACTION .. WASH

11/27/70

RUN NO. ** 2 **

PAGE 210

S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C)
GROUP/KEY 3.4.1

** EQUIPMENT/EXPERIMENT NO. 1 THE ROLE OF GRAVITY IN GENERAL C
CELLULAR FUNCTION

*** WASTE SOURCE NO. 1 GENERAL GROWTH BEHAVIOR AND REPRODUCTION
IN CELLS

*** WASTE ITEM NO. 9 LIGHT BULB

STATE SOLID

DENSITY 13.82 LBS/CU. FT.

ATTRIBUTES GLASS, DEFECTIVE

ELEMENTS PRESENT ..

COMPOSITION BOROSILICATES

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.03

DAILY RATE 0.00

BATCH SIZE 0.03

RECLAMATION ACTION .. N/R

*** WASTE ITEM NO. 10 PACKAGING MATERIAL

STATE SOLID

DENSITY 0.08 LBS/CU. FT.

ATTRIBUTES PAPER, PLASTIC, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE, POLYETHYLENE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.75

DAILY RATE 0.00

BATCH SIZE 0.25

RECLAMATION ACTION .. REUSE AS IS

*** WASTE ITEM NO. 11 CARBON DIOXIDE

STATE GAS

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES STABLE, DANGEROUS

ELEMENTS PRESENT .. CARBON, OXYGEN

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.00

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. REDUCE

11/30/70

RUN NO. ** 2 **

PAGE 211

S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C)
GROUP KEY 3.4.1

** EQUIPMENT/EXPERIMENT NO. 1 THE 'ROLE OF GRAVITY IN GENERAL C
ELLULAR FUNCTION

**** WASTE SOURCE NO. 2 MAINTENANCE OF NORMAL GROWTH AND REPRODU
CTION IN FREE CELLS
DOCUMENT NO. 3.4.1.1.2

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH CR
BITAL MISSION, REVISION, SEPTEMBER 1968,
NASA OMSF.

REFERENCE NO. 2 .. BICREGENERATIVE SYSTEMS - CONFERENCE HEL
D IN WASHINGTON, D.C., NOVEMBER 15-16, 1
966, NASA SP-165.

***** WASTE ITEM NO. 1 GAS RESERVOIR FLASK
STATE SOLID
DENSITY 8.00 LBS/CU. FT.
ATTRIBUTES PLASTIC, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.20
DAILY RATE 0.00
BATCH SIZE 0.20
RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 2 GAS RESERVOIR BOTTLE
STATE SOLID
DENSITY 8.00 LBS/CU. FT.
ATTRIBUTES PLASTIC, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.20
DAILY RATE 0.00
BATCH SIZE 0.20
RECLAMATION ACTION .. WASH

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C)
GROUP, KEY 3.4.1

** EQUIPMENT/EXPERIMENT NO. 1 THE ROLE OF GRAVITY IN GENERAL C
ELLULAR FUNCTION

*** WASTE SOURCE NO. 2 MAINTENANCE OF NORMAL GROWTH AND REPRODU
CTION IN FREE CELLS

*** WASTE ITEM NO. 3 CULTURE MEDIUM BOTTLE
STATE SOLID
DENSITY 8.00 LBS/CU. FT.
ATTRIBUTES PLASTIC, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 2.40
DAILY RATE 0.00
BATCH SIZE 0.20
RECLAMATION ACTION .. N/R

*** WASTE ITEM NO. 4 CULTURE FLASK
STATE SOLID
DENSITY 8.00 LBS/CU. FT.
ATTRIBUTES PLASTIC, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.20
DAILY RATE 0.00
BATCH SIZE 0.20
RECLAMATION ACTION .. N/R

*** WASTE ITEM NO. 5 SYRINGE
STATE SOLID
DENSITY 35.60 LBS/CU. FT.
ATTRIBUTES PLASTIC, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.16
DAILY RATE 0.00
BATCH SIZE 0.01
RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

PAGE 213

S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C)
GROUP KEY 3.4.1

** EQUIPMENT/EXPERIMENT NO. 1 THE ROLE OF GRAVITY IN GENERAL C
CELLULAR FUNCTION

**** WASTE SOURCE NO. 2 MAINTENANCE OF NORMAL GROWTH AND REPRODU
CTION IN FREE CELLS

**** * WASTE ITEM NO. 6 LYOPHILIZING MILK IN TUBES
STATE SOLID
DENSITY 86.40 LBS/CU. FT.
ATTRIBUTES PLASTIC, ORGANIC, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE, GEL
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 24.00
DAILY RATE 0.00
BATCH SIZE 0.02
RECLAMATION ACTION .. N/R

**** * WASTE ITEM NO. 7 PACKAGING MATERIAL
STATE SOLID
DENSITY 0.08 LBS/CU. FT.
ATTRIBUTES PAPER, PLASTIC, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE, POLYSTYRENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.72
DAILY RATE 0.00
BATCH SIZE 0.06
RECLAMATION ACTION .. REUSE AS IS

***** WASTE ITEM NO. 8 AUTOCLAVE WASTE WATER
STATE VAPOR
DENSITY 62.00 LBS/CU. FT.
ATTRIBUTES STEAM
ELEMENTS PRESENT ..
COMPOSITION WATER, IMPURITIES
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 45.00
DAILY RATE 0.50
BATCH SIZE 0.00
RECLAMATION ACTION .. CONDENSE, STRAIN

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

PAGE 214

S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C)
GROUP KEY 3.4.1

** EQUIPMENT/EXPERIMENT NO. 1 THE ROLE OF GRAVITY IN GENERAL C
CELLULAR FUNCTION

*** WASTE SOURCE NO. 2 MAINTENANCE OF NORMAL GROWTH AND REPRODU
CTION IN FREE CELLS

*** WASTE ITEM NO. 9 FORMALDEHYDE

STATE LIQUID

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES MIXTURE, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION CH2O

GENERATION DATA ...

QUANTITY (LBS)

EXPI. TOTAL 0.00

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C)
GROUP KEY 3.4.1

** EQUIPMENT/EXPERIMENT NO. 1 THE ROLE OF GRAVITY IN GENERAL C
CELLULAR FUNCTION

*** WASTE SOURCE NO. 3 MINERAL METABOLISM IN CELLS

DOCUMENT NO. 3.4.1.1.3

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSION, REVISION, SEPTEMBER 1968,
NASA OMSF.

REFERENCE NO. 2 .. BACTERIAL AND MYCOTIC INFECTIONS OF MAN,
4TH EDITION, EDITED BY DUBOS, R.J., AND
HIRSCH, J.G., 1965 LIPPINCOTT.

***** WASTE ITEM NO. 1 LYOPHILIZED MICROORGANISMS AND TUBE

STATE SOLID

DENSITY 25.00 LBS/CU. FT.

ATTRIBUTES GLASS, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION BOROSILICATES

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.09

DAILY RATE 0.00

BATCH SIZE 0.03

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 MEDIA IN PLATES

STATE SOLID

DENSITY 34.50 LBS/CU. FT.

ATTRIBUTES PLASTIC, AGARGEL, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYSTYRENE, GEL

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 4.50

DAILY RATE 0.05

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

PAGE 216

S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C)
GROUP KEY 3.4.1

** EQUIPMENT/EXPERIMENT NO. 1 THE ROLE OF GRAVITY IN GENERAL C
CELLULAR FUNCTION

** WASTE SOURCE NO. 3 MINERAL METABOLISM IN CELLS

** WASTE ITEM NO. 3 MEDIA IN TUBES

STATE SOLID

DENSITY 86.40 LBS/CU. FT.

ATTRIBUTES PLASTIC, AGARGEL

ELEMENTS PRESENT ..

COMPOSITION POLYSTYRENE, GEL

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 18.00

DAILY RATE 0.01

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

** WASTE ITEM NO. 4 SYRINGES

STATE SOLID

DENSITY 35.60 LBS/CU. FT.

ATTRIBUTES PLASTIC, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYSTYRENE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.22

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

** WASTE ITEM NO. 5 INNOCULATING NEEDLES

STATE SOLID

DENSITY 1.70 LBS/CU. FT.

ATTRIBUTES PLASTIC, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYSTYRENE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.48

DAILY RATE 0.00

BATCH SIZE 0.04

RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

PAGE 217

S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C)
GROUP KEY 3.4.1

** EQUIPMENT/EXPERIMENT NO. 1 THE ROLE OF GRAVITY IN GENERAL C
CELLULAR FUNCTION

*** WASTE SOURCE NO. 3 MINERAL METABOLISM IN CELLS

***** WASTE ITEM NO. 6 PACKAGING MATERIAL

STATE SOLID

DENSITY 0.08 LBS/CU. FT.

ATTRIBUTES PLASTIC, PAPER, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYETHYLENE, CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.80

DAILY RATE 0.02

BATCH SIZE 0.00

RECLAMATION ACTION .. REUSE AS IS

11/10/70

RUN NO. ** 2 **

PAGE 218

S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C)
GROUP KEY 3.4.1

** EQUIPMENT/EXPERIMENT NO. 2 GENETIC STABILITY IN FREE CELLS

ASSOCIATED FPE NUMBER ... 5.25
S/C AREAS BIC-LABORATORY

*** WASTE SOURCE NO. 1 GENETIC STABILITY IN FREE CELLS

DOCUMENT NO. 3.4.1.2.1*

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSION, REVISION, SEPTEMBER 1968,
NASA OMSF.

REFERENCE NO. 2 .. THE EFFECTS OF WEIGHTLESSNESS ON PELOMYX
A NUCLEAR AND CELLULAR DIVISION, BIOSCIE
NCE, JUNE 1968, VOL. 18, NO. 6, FKBERG, D
R., SILVER, E.C., BUSHAY, J.L., DANIELS,

REFERENCE NO. 3 .. THE EFFECTS OF WEIGHTLESSNESS ON PELOMYX
A DIGESTION, GROWTH AND LOCOMOTION, BIOS
CIENCE, JUNE 1968, VOL. 18, NO. 6 PRICE
R.W., AND ABEL, J.H., JR.

***** WASTE ITEM NO. 1 CONTAINER

STATE SOLID
DENSITY 8.00 LBS/CU. FT.
ATTRIBUTES PLASTIC, CONTAMINATED
ELEMENTS PRESENT ..

COMPOSITION POLYSTYRENE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.60

DAILY RATE 0.00

BATCH SIZE 0.20

RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 2 GROWTH MEDIUM

STATE LIQUID
DENSITY 62.00 LBS/CU. FT.
ATTRIBUTES MIXTURE, CONTAMINATED, ORGANIC
ELEMENTS PRESENT .. HYDROGEN, OXYGEN
COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.30

DAILY RATE 0.00

BATCH SIZE 0.10

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

PAGE 219

S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C)
GROUP KEY 3.4.1

** EQUIPMENT/EXPERIMENT NO. 2 GENETIC STABILITY IN FREE CELLS
**** WASTE SOURCE NO. 1 GENETIC STABILITY IN FREE CELLS

***** WASTE ITEM NO. 3 CONGO RED, YEAST, BOTTLE
STATE SOLID
DENSITY 52.27 LBS/CU. FT.
ATTRIBUTES GLASS, ORGANIC
ELEMENTS PRESENT ..
COMPOSITION BOROSILICATES
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.12
DAILY RATE 0.00
BATCH SIZE 0.04
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 4 ACETIC ACID, BOTTLE
STATE SOLID
DENSITY 52.27 LBS/CU. FT.
ATTRIBUTES GLASS, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION BOROSILICATES
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.12
DAILY RATE 0.00
BATCH SIZE 0.04
RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 5 STAIN, BOTTLE
STATE SOLID
DENSITY 52.27 LBS/CU. FT.
ATTRIBUTES GLASS, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION BOROSILICATES
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.12
DAILY RATE 0.00
BATCH SIZE 0.04
RECLAMATION ACTION .. WASH

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

PAGE 220

S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C)
GROUP KEY 3.4.1

** EQUIPMENT/EXPERIMENT NO. 2 GENETIC STABILITY IN FREE CELLS
**** WASTE SOURCE NO. 1 GENETIC STABILITY IN FREE CELLS
****, ****

***** WASTE ITEM NO. 6 PASTEUR PIPETTE
STATE SOLID
DENSITY 17.28 LBS/CU. FT.
ATTRIBUTES GLASS, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION BOROSILICATES
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.90
DAILY RATE 0.01
BATCH SIZE 0.00
RECLAMATION ACTION .. STERILIZE

***** WASTE ITEM NO. 7 PIPETTE BULB
STATE SOLID
DENSITY 59.00 LBS/CU. FT.
ATTRIBUTES RUBBER, CONTAMINATED
ELEMENTS PRESENT .. SILICONES
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.04
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. REUSE AS IS

***** WASTE ITEM NO. 8 STYKES-MOORE CHAMBER
STATE SOLID
DENSITY 8.64 LBS/CU. FT.
ATTRIBUTES GLASS, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION BOROSILICATES
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.80
DAILY RATE 0.02
BATCH SIZE 0.00
RECLAMATION ACTION .. WASH

11/30/70

RUN NO. ** 2 **

PAGE 221

S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C)
GROUP KEY 3.4.1

** EQUIPMENT/EXPERIMENT NO. 2 GENETIC STABILITY IN FREE CELLS
*** WASTE SOURCE NO. 1 GENETIC STABILITY IN FREE CELLS

***** WASTE ITEM NO. 9 LIGHT BULB
STATE SOLID
DENSITY 13.82 LBS/CU. FT.
ATTRIBUTES GLASS, DEFECTIVE
ELEMENTS PRESENT ..
COMPOSITION BOROSILICATES
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.03
DAILY RATE 0.00
BATCH SIZE 0.03
RECLAMATION ACTION .. N/R

/ ***** WASTE ITEM NO. 10 PACKAGING MATERIAL
STATE SOLID
DENSITY 0.08 LBS/CU. FT.
ATTRIBUTES PAPER, PLASTIC, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE, POLYETHYLENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.75
DAILY RATE 0.00
BATCH SIZE 0.25
RECLAMATION ACTION .. REUSE AS IS

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C)
GROUP KEY 3.4.1

** EQUIPMENT/EXPERIMENT NO. 3 THE ROLE OF GRAVITY IN TISSUE FU
NCTION
ASSOCIATED FPE NUMBER ... 5.25
S/C AREAS BIC-LABORATORY

**** WASTE SOURCE NO. 1 ANIMAL TISSUE DEVELOPMENT

DOCUMENT NO. 3.4.1.3.1

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, REVISION NO. 1 NASA OFFI
CE OF MANNED SPACE FLIGHT, SEPTEMBER 1,
1969.

REFERENCE NO. 2 .. TISSUE CULTURE, A MANUAL OF MATERIALS AN
D METHODS. BBL.

REFERENCE NO. 3 .. CELLS AND TISSUES IN CULTURE, METHODS, B
IOLOGY AND PHYSIOLOGY, EDITED BY WILLMER
, E.N., 1965 ACADEMIC PRESS.

***** WASTE ITEM NO. 1 TISSUE CULTURE DISH
STATE SOLID
DENSITY 6.80 LBS/CU. FT.
ATTRIBUTES PLASTIC, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.05
DAILY RATE 0.00
BATCH SIZE 0.05
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 TISSUE CULTURE TUBES
STATE SOLID
DENSITY 5.00 LBS/CU. FT.
ATTRIBUTES PLASTIC CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 2.40
DAILY RATE 0.00
BATCH SIZE 0.20
RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C)
GROUP KEY 3.4.1

** EQUIPMENT/EXPERIMENT NO. 3 THE ROLE OF GRAVITY IN TISSUE FU
ACTION

** WASTE SOURCE NO. 1 ANIMAL TISSUE DEVELOPMENT

***** WASTE ITEM NO. 3 SLIDES

STATE SOLID

DENSITY 190.80 LBS/CU. FT.

ATTRIBUTES GLASS, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION BOROSILICATES

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 0.90

DAILY RATE 0.01

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 4 FORCEPS

STATE SOLID

DENSITY 490.00 LBS/CU. FT.

ATTRIBUTES METAL, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION STEEL

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 2.70

DAILY RATE 0.03

BATCH SIZE 0.00

RECLAMATION ACTION .. STERILIZE

***** WASTE ITEM NO. 5 SCISSORS

STATE SOLID

DENSITY 490.00 LBS/CU. FT.

ATTRIBUTES METAL, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION STEEL

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 6.30

DAILY RATE 0.07

BATCH SIZE 0.00

RECLAMATION ACTION .. STERILIZE

11/30/70

RUN NO. ** 2 **

PAGE 224

S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C)
GROUP KEY 3.4.1

** EQUIPMENT/EXPERIMENT NO. 3 THE ROLE OF GRAVITY IN TISSUE FU
NCTION

*** WASTE SOURCE NO. 1 ANIMAL TISSUE DEVELOPMENT

*** WASTE ITEM NO. 6 TISSUE CULTURE MEDIA BOTTLE

STATE SOLID

DENSITY 8.00 LBS/CU. FT.

ATTRIBUTES PLASTIC, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYSTYRENE

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 2.40

DAILY RATE 0.00

BATCH SIZE 0.80

RECLAMATION ACTION .. N/R

*** WASTE ITEM NO. 7 TISSUE CULTURE MEDIUM REHYDRATING

STATE SOLID

DENSITY 8.00 LBS/CU. FT.

ATTRIBUTES PLASTIC, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYSTYRENE

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 2.40

DAILY RATE 0.00

BATCH SIZE 0.80

RECLAMATION ACTION .. N/R

*** WASTE ITEM NO. 8 STAIN AND BOTTLE

STATE SOLID

DENSITY 52.27 LBS/CU. FT.

ATTRIBUTES GLASS, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION BOROSILICATES

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 0.12

DAILY RATE 0.00

BATCH SIZE 0.04

RECLAMATION ACTION .. WASH

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C)
GROUP KEY 3.4.1

** EQUIPMENT/EXPERIMENT NO. 3 THE ROLE OF GRAVITY IN TISSUE FU
NCTION

**** WASTE SOURCE NO. 1 ANIMAL TISSUE DEVELOPMENT

***** WASTE ITEM NO. 9 SYRINGE

STATE SOLID

DENSITY 35.60 LBS/CU. FT.

ATTRIBUTES PLASTIC, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYSTYRENE

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

1.17

DAILY RATE

0.00

BATCH SIZE

0.03

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 10 TISSUE CULTURE GRID

STATE SOLID

DENSITY 190.00 LBS/CU. FT.

ATTRIBUTES METAL, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION STEEL

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

0.00

DAILY RATE

0.00

BATCH SIZE

0.02

RECLAMATION ACTION .. STERILIZE

***** WASTE ITEM NO. 11 HEAMOCYTCMETER

STATE SOLID

DENSITY 45.12 LBS/CU. FT.

ATTRIBUTES GLASS, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION BOROSILICATES

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

9.00

DAILY RATE

0.10

BATCH SIZE

0.00

RECLAMATION ACTION .. WASH

** MANAGED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C)
GROUP KEY 3.4.1

** EQUIPMENT/EXPERIMENT NO. 3 THE ROLE OF GRAVITY IN TISSUE FU
NCTION

*** WASTE SOURCE NO. 1 ANIMAL TISSUE DEVELOPMENT

*** *****

***** WASTE ITEM NO. 12 PACKAGING MATERIAL

STATE SOLID

DENSITY 0.03 LBS/CU. FT.

ATTRIBUTES PAPER, PLASTIC, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE, POLYETHYLENE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 2.70

DAILY RATE 0.03

BATCH SIZE 0.00

RECLAMATION ACTION .. REUSE AS IS

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C)
GROUP KEY 3.4.1

** EQUIPMENT/EXPERIMENT NO. 3 THE ROLE OF GRAVITY IN TISSUE FU
NCTION

*** *****

*** WASTE SOURCE NO. 2 PLANT TISSUE DEVELOPMENT

DOCUMENT NO. 3.4.1.3.2

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, REVISION NO. 1, NASA OMS
F, SEPTEMBER 1, 1969.

REFERENCE NO. 2 .. TISSUE CULTURE, A MANUAL OF MATERIALS AN
D METHODS. BBL.

***** WASTE ITEM NO. 1 SYRINGES

STATE SOLID

DENSITY 35.60 LBS/CU. FT.

ATTRIBUTES PLASTIC, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYSTYRENE

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 0.31

DAILY RATE 0.00

BATCH SIZE 0.03

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 TISSUE CULTURE MEDIUM BOTTLE

STATE SOLID

DENSITY 8.00 LBS/CU. FT.

ATTRIBUTES PLASTIC, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYSTYRENE

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 0.60

DAILY RATE 0.00

BATCH SIZE 0.20

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C)
GROUP KEY 3.4.1

** EQUIPMENT/EXPERIMENT NO. 3 THE ROLE OF GRAVITY IN TISSUE FU
NCTION

*** WASTE SOURCE NO. 2 PLANT TISSUE DEVELOPMENT

*** WASTE ITEM NO. 3 REHYDRATING FLUID BOTTLE

STATE SOLID
DENSITY 8.00 LBS/CU. FT.
ATTRIBUTES PLASTIC, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.60
DAILY RATE 0.00
BATCH SIZE 0.20
RECLAMATION ACTION .. N/R

*** WASTE ITEM NO. 4 FORCEPS

STATE SOLID
DENSITY 490.00 LBS/CU. FT.
ATTRIBUTES METAL, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION STEEL
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.36
DAILY RATE 0.00
BATCH SIZE 0.03
RECLAMATION ACTION .. STERILIZE

*** WASTE ITEM NO. 5 PACKAGING MATERIAL

STATE SOLID
DENSITY 0.08 LBS/CU. FT.
ATTRIBUTES PAPER, PLASTIC, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.12
DAILY RATE 0.00
BATCH SIZE 0.01
RECLAMATION ACTION .. REUSE AS IS

S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C)
GROUP KEY 3.4.1

** EQUIPMENT/EXPERIMENT NO. 4 DEVELOPMENT IN THE ANIMAL EMBRYO

ASSOCIATED FPE NUMBER ... 5.25
S/C AREAS BIC-LABORATORY

**** WASTE SOURCE NO. 1 DEVELOPMENT IN THE ANIMAL EMBRYO

DOCUMENT NO. 3.4.1.4.1*

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, REVISION NO. 1, NASA OFF
ICE OF MANNED SPACE FLIGHT, SEPTEMBER 1,
1969.

REFERENCE NO. 2 .. CELLS AND TISSUE IN CULTURE, METHODS, BI
OLOGY AND PHYSIOLOGY, EDITED BY WILLKER,
E.N., 1965 ACADEMIC PRESS.

REFERENCE NO. 3 .. VIRAL AND RICKETTSIAL INFECTIONS OF MAN,
HCRSFALL, F.L., TAMM, I., 1965 LIPPINCOT
T.

***** WASTE ITEM NO. 1 PETRI DISH AND EGG SHELL

STATE SOLID
DENSITY 5.00 LBS/CU. FT.
ATTRIBUTES PLASTIC, ORGANIC, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 2.70
DAILY RATE 0.03
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 CURVED FORCEPS

STATE SOLID
DENSITY 490.00 LBS/CU. FT.
ATTRIBUTES METAL, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION STEEL
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 2.70
DAILY RATE 0.03
BATCH SIZE 0.00
RECLAMATION ACTION .. STERILIZE

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C)
GROUP KEY 3.4.1

** EQUIPMENT/EXPERIMENT NO. 4DEVELOPMENT IN THE ANIMAL EMBRYO
*** WASTE SOURCE NO. 1 DEVELOPMENT IN THE ANIMAL EMBRYO

***** WASTE ITEM NO. 3 STRAIGHT FORCEPS
STATE SOLID
DENSITY 490.00 LBS/CU. FT.
ATTRIBUTES METAL, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION STEEL
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 2.70
DAILY RATE 0.03
BATCH SIZE 0.00
RECLAMATION ACTION .. STERILIZE

***** WASTE ITEM NO. 4 SCISSORS
STATE SOLID
DENSITY 490.00 LBS/CU. FT.
ATTRIBUTES METAL, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION STEEL
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 6.30
DAILY RATE 0.07
BATCH SIZE 0.00
RECLAMATION ACTION .. STERILIZE

***** WASTE ITEM NO. 5 PACKAGING MATERIAL
STATE SOLID
DENSITY 0.08 LBS/CU. FT.
ATTRIBUTES PAPER, CELLULOSE, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE, POLYETHYLENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 2.70
DAILY RATE 0.03
BATCH SIZE 0.00
RECLAMATION ACTION .. REUSE AS IS

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RUN NO. ** 2 **

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S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C)
GROUP KEY 3.4.1

** EQUIPMENT/EXPERIMENT NO. 4DEVELOPMENT IN THE ANIMAL EMBRYO
*** WASTE SOURCE NO. 1 DEVELOPMENT IN THE ANIMAL EMBRYO

***** WASTE ITEM NO. 6 PAPER TOWEL
STATE SOLID
DENSITY 6.07 LBS/CU. FT.
ATTRIBUTES PAPER, TOWEL
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.90
DAILY RATE 0.01
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C)

GROUP KEY 3.4.1

** EQUIPMENT/EXPERIMENT NO. 5 HOST-PARASITE RELATIONSHIPS

ASSOCIATED FPE NUMBER ... 5.25

S/C AREAS BIO-LABORATORY

**** WASTE SOURCE NO. 1 HOST-PARASITE RELATIONSHIPS

DOCUMENT NO. 3.4.1.5.1*

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, REVISION NO. 1, NASA OMS
F, SEPTEMBER 1, 1969.

***** WASTE ITEM NO. 1 MICROORGANISMS, TUBE, DISTILLED WATER

STATE SOLID

DENSITY 8.64 LBS/CU. FT.

ATTRIBUTES GLASS, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION BOROSILICATES

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

0.90

DAILY RATE

0.00

BATCH SIZE

0.30

RECLAMATION ACTION .. N/R

**** ** WASTE ITEM NO. 2 PHAGE, TUBE, DISTILLED WATER

STATE SOLID

DENSITY 8.64 LBS/CU. FT.

ATTRIBUTES GLASS CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION BOROSILICATES

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

1.80

DAILY RATE

0.00

BATCH SIZE

0.60

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 3 MEDIA IN TUBES

STATE SOLID

DENSITY 86.40 LBS/CU. FT.

ATTRIBUTES PLASTIC, GEL, ORGANIC, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYSTYRENE

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

12.00

DAILY RATE

0.00

BATCH SIZE

1.00

RECLAMATION ACTION .. N/R

S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C)
GROUP KEY 3.4.1

** EQUIPMENT/EXPERIMENT NO. 5HOST-PARASITE RELATIONSHIPS
*** WASTE SOURCE NO. 1 HOST-PARASITE RELATIONSHIPS

***** WASTE ITEM NO. 4 MEDIA IN PLATES
STATE SOLID
DENSITY 34.50 LBS/CU. FT.
ATTRIBUTES PLASTIC, GEL, ORGANIC, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 6.00
DAILY RATE 0.00
BATCH SIZE 0.50
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 5 INNOCULATING NEEDLES
STATE SOLID
DENSITY 0.30 LBS/CU. FT.
ATTRIBUTES PLASTIC, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.30
DAILY RATE 0.00
BATCH SIZE 10.25
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 6 SYRINGES
STATE SOLID
DENSITY 35.60 LBS/CU. FT.
ATTRIBUTES PLASTIC, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.39
DAILY RATE 0.00
BATCH SIZE 0.13
RECLAMATION ACTION .. N/R

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RUN NO. ** 2 **

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S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C)
GROUP KEY 3.4.1

** EQUIPMENT/EXPERIMENT NO. 5HOST-PARASITE RELATIONSHIPS
*** WASTE SOURCE NO. 1 HOST-PARASITE RELATIONSHIPS

***** WASTE ITEM NO. 7 LYCPHILIZING MILK IN TUBES
STATE SOLID
DENSITY 0.00 LBS/CU. FT.
ATTRIBUTES PLASTIC, GEL, ORGANIC, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.20
DAILY RATE 0.00
BATCH SIZE 0.10
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 8 PAPER TOWELS
STATE SOLID
DENSITY 6.07 LBS/CU. FT.
ATTRIBUTES PAPER, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 5.40
DAILY RATE 0.06
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 9 PACKAGING MATERIAL
STATE SOLID
DENSITY 0.08 LBS/CU. FT.
ATTRIBUTES PAPER, PLASTIC, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE, POLYETHYLENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 3.00
DAILY RATE 0.00
BATCH SIZE 0.25
RECLAMATION ACTION .. REUSE AS IS

S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C)
GROUP KEY 3.4.1

*** *****

** EQUIPMENT/EXPERIMENT NO. 6 BIORYTHMS IN MICROORGANISMS

ASSOCIATED FPE NUMBER ... 5.25
S/C AREAS BIO-LABORATORY

*** WASTE SOURCE NO. 1 BIORYTHMS IN MICROORGANISMS

DOCUMENT NO. 3.4.1.6.1*

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, REVISION NO. 1, NASA OFF
ICE OF MANNED SPACE FLIGHTS, SEPTEMBER 1
, 1969

REFERENCE NO. 2 .. DIAGNOSTIC MICROBIOLOGY, 1966 2ND EDITIO
N, BAILEY, W.R., SCOTT, E.G., THE C. V.
MOSBY COMPANY.

REFERENCE NO. 3 .. THE COMBINED EFFECT OF WEIGHTLESSNESS AN
D RADIATION ON INACTIVATION AND MUTATION
ETC. DESERRES, F.J., WEBBER, B.B., JUNE 1
968, BIOSCIENCE VOLUME 18, NO. 6.

***** WASTE ITEM NO. 1 LYOPHILIZED NEUROSPORA, H2O, TUBES

STATE SOLID
DENSITY 8.64 LBS/CU. FT.
ATTRIBUTES GLASS, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION BIODISILICATES
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.56
DAILY RATE 0.00
BATCH SIZE 0.52
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 LYOPHILIZING MILK IN TUBES

STATE SOLID
DENSITY 86.40 LBS/CU. FT.
ATTRIBUTES PLASTIC, ORGANIC, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.20
DAILY RATE 0.00
BATCH SIZE 0.40
RECLAMATION ACTION .. N/R

S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C)
GROUP KEY 3.4.1

** EQUIPMENT/EXPERIMENT NO. 6BIORYTHMS IN MICROORGANISMS
*** WASTE SOURCE NO. 1 BIORYTHMS IN MICROORGANISMS

***** WASTE ITEM NO. 3 MEDIA IN TUBES
STATE SOLID
DENSITY 86.40 LBS/CU. FT.
ATTRIBUTES PLASTIC, GEL, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE, AGAR GEL
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 4.80
DAILY RATE 0.00
BATCH SIZE 0.40
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 4 SYRINGES
STATE SOLID
DENSITY 35.60 LBS/CU. FT.
ATTRIBUTES PLASTIC, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.72
DAILY RATE 0.00
BATCH SIZE 0.24
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 5 INNOCULATING NEEDLES
STATE SOLID
DENSITY 0.30 LBS/CU. FT.
ATTRIBUTES PLASTIC, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.48
DAILY RATE 0.00
BATCH SIZE 0.04
RECLAMATION ACTION .. N/R

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S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C)
GROUP KEY 3.4.1

** EQUIPMENT/EXPERIMENT NO. 6 BIOLOGY IN MICROORGANISMS
*** WASTE SOURCE NO. 1 BIOLOGY IN MICROORGANISMS

***** WASTE ITEM NO. 6 PAPER TOWELS
STATE SOLID
DENSITY 6.07 LBS/CU. FT.
ATTRIBUTES PAPER, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 5.40
DAILY RATE 0.06
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

/ ***** WASTE ITEM NO. 7 PACKAGING MATERIAL
STATE SOLID
DENSITY 0.08 LBS/CU. FT.
ATTRIBUTES PAPER, PLASTIC
ELEMENTS PRESENT ..
COMPOSITION POLYETHYLENE, CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 3.00
DAILY RATE 0.00
BATCH SIZE 0.25
RECLAMATION ACTION .. REUSE AS IS

S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C)

GROUP KEY 3.4.1

** EQUIPMENT/EXPERIMENT NO. 7 WEIGHTLESSNESS AND MOLECULAR REACTIONS IN VITRO

ASSOCIATED FPE NUMBER ... 5.25

S/C AREAS BIO-LABORATORY

**** WASTE SOURCE NO. 1 WEIGHTLESSNESS AND MOLECULAR REACTIONS IN VITRO

DOCUMENT NO. 3.4.1.7.1*

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH ORBITAL MISSIONS, REVISION NO. 1, NASA OMSF, SEPTEMBER 1, 1969 .

***** WASTE ITEM NO. 1 REAGENT BOTTLES

STATE SOLID

DENSITY 8.00 LBS/CU. FT.

ATTRIBUTES PLASTIC, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYSTYRENE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 7.20

DAILY RATE 0.00

BATCH SIZE 0.16

RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 2 PAPER TOWELS

STATE SOLID

DENSITY 6.07 LBS/CU. FT.

ATTRIBUTES PAPER, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 5.40

DAILY RATE 0.06

BATCH SIZE 0.00

RECLAMATION ACTION .. NONE

***** WASTE ITEM NO. 3 COLORIMETRIC BLANKS

STATE SOLID

DENSITY 8.64 LBS/CU. FT.

ATTRIBUTES GLASS, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION BOROSILICATES

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 7.20

DAILY RATE 0.08

BATCH SIZE 0.00

RECLAMATION ACTION .. WASH

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RUN NO. ** 2 **

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S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C)
GROUP KEY 3.4.1

** EQUIPMENT/EXPERIMENT NO. 7WEIGHTLESSNESS AND MOLECULAR REA
CTIONS IN VITRO

**** WASTE SOURCE NO. 1 WEIGTLESSNESS AND MOLECULAR REACTIONS IN
VITRO

**** ** WASTE ITEM NO. 4 DEFECTIVE BULB

STATE SOLID

DENSITY 13.82 LBS/CU. FT.

ATTRIBUTES GLASS, DEFECTIVE

ELEMENTS PRESENT ..

COMPOSITION BOROSILICATES

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

0.08

DAILY RATE

0.00

BATCH SIZE

0.03

RECLAMATION ACTION .. NONE

**** ** WASTE ITEM NO. 5 PACKAGING MATERIAL

STATE SOLID

DENSITY 0.08 LBS/CU. FT.

ATTRIBUTES PAPER, PLASTIC, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE, POLYETHYLENE

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

0.54

DAILY RATE

0.00

BATCH SIZE

0.02

RECLAMATION ACTION .. REUSE AS IS

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM INVERTEBRATES EXPERIMENT

GROUP KEY 3.4.2

BASIC FUNCTION PERFORM MISSION TASKS

FUNCTIONAL REQUIREMENT BIOLOGICAL SCIENCES AND BIOTECHNOLOGY STUDIES

** EQUIPMENT/EXPERIMENT NO. 1 THE INVERTEBRATE ORGANISM AND ITS LIFE CYCLE

ASSOCIATED FPE NUMBER ... 5.26

S/C AREAS BIO-LABORATORY

*** WASTE SOURCE NO. 1 THE INVERTEBRATE ORGANISMS AND ITS LIFE CYCLE

DOCUMENT NO. 3.4.2.1.1*

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH ORBITAL MISSION REVISION DATA MAY 1969, NASA OFFICE MANNED SPACE

REFERENCE NO. 2 .. MANOMETRIC TECHNIQUES- 4TH EDITION 1964, UMBRIET, W.W. BURRIS, R.H. STAUFFER, J.F. BURGESS PUBLISHING CO.

REFERENCE NO. 3 .. EXPERIMENTS IN GENETICS WITH DROSOPHILA 1962 STRICKBERGER, M.W. JOHN WILEY AND SONS.

***** WASTE ITEM NO. 1 CARBON DIOXIDE

STATE GAS

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES STABLE, DANGEROUS

ELEMENTS PRESENT .. CARBON, OXYGEN

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.00

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. REDUCE

***** WASTE ITEM NO. 2 YEAST SOLUTION, BOTTLE

STATE SOLID GEL, GLASS

DENSITY 5.29 LBS/CU. FT.

ATTRIBUTES CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION ORGANIC BOROSILICATES

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.12

DAILY RATE 0.00

BATCH SIZE 0.04

RECLAMATION ACTION .. NONE

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RUN NO. ** 2 **

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S/C SUBSYSTEM INVERTEBRATES EXPERIMENT
GROUP KEY 3.4.2

** EQUIPMENT/EXPERIMENT NO. 1 THE INVERTEBRATE ORGANISM AND ITS
S LIFE CYCLE

*** WASTE SOURCE NO. 1 THE INVERTEBRATE ORCANISMS AND ITS LIFE
CYCLE

***** WASTE ITEM NO. 3 WATCH GLASS
STATE SOLID GLASS
DENSITY 5.16 LBS/CU. FT.
ATTRIBUTES CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION BOROSILICATES
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 9.00
DAILY RATE 0.10
BATCH SIZE 0.00
RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 4 COUNTING PLATE
STATE SOLID GLASS
DENSITY 42.17 LBS/CU. FT.
ATTRIBUTES CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION BOROSILICATES
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 9.00
DAILY RATE 0.10
BATCH SIZE 0.00
RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 5 FORCEPS
STATE SOLID
DENSITY 490.00 LBS/CU. FT.
ATTRIBUTES METAL, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION STEEL
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 2.79
DAILY RATE 0.03
BATCH SIZE 0.00
RECLAMATION ACTION .. WASH

S/C SUBSYSTEM INVERTEBRATES EXPERIMENT

POUP, KEY 3.4.2

** EQUIPMENT/EXPERIMENT NO. 1 THE INVERTEBRATE ORGANISM AND ITS
S LIFE CYCLE*** WASTE SOURCE NO. 1 THE INVERTEBRATE ORGANISMS AND ITS LIFE
CYCLE

*** WASTE ITEM NO. 6 BRUSH
 STATE SOLID METAL
 DENSITY 490.00 LBS/CU. FT.
 ATTRIBUTES ORGANIC CONTAMINATED
 ELEMENTS PRESENT ..
 COMPOSITION STEEL, CAMEL HAIR
 GENERATION DATA ... QUANTITY (LBS)
 EXPT. TOTAL 2.79
 DAILY RATE 0.03
 BATCH SIZE 0.00
 RECLAMATION ACTION .. WASH

*** WASTE ITEM NO. 7 BOTTLE WITH ANAESTHESIZING AGENT
 STATE SOLID
 DENSITY 52.87 LBS/CU. FT.
 ATTRIBUTES GLASS, LIQUID, DANGEROUS
 ELEMENTS PRESENT ..
 COMPOSITION ANAESTHETIC, BOROSILICATES
 GENERATION DATA ... QUANTITY (LBS)
 EXPT. TOTAL 0.24
 DAILY RATE 0.00
 BATCH SIZE 0.04
 RECLAMATION ACTION .. NONE

*** WASTE ITEM NO. 8 ANAESTHESIZING CHAMBER
 STATE SOLID
 DENSITY 6.70 LBS/CU. FT.
 ATTRIBUTES PLASTIC, CONTAMINATED
 ELEMENTS PRESENT ..
 COMPOSITION POLYSTYRENE
 GENERATION DATA ... QUANTITY (LBS)
 EXPT. TOTAL 18.00
 DAILY RATE 0.20
 BATCH SIZE 0.00
 RECLAMATION ACTION .. WASH

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM INVERTEBRATES EXPERIMENT
GROUP KEY 3.4.2

** EQUIPMENT/EXPERIMENT NO. 1THE INVERTEBRATE ORGANISM AND IT
S LIFE CYCLE

**** WASTE SOURCE NO. 1 THE INVERTEBRATE ORGANISMS AND ITS LIFE
CYCLE

***** WASTE ITEM NO. 9 DEFECTIVE MICROSCOPE LAMP

STATE SOLID

DENSITY 13.82 LBS/CU. FT.

ATTRIBUTES GLASS,DEFECTIVE

ELEMENTS PRESENT ..

COMPOSITION BOROSILICATES

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 0.06

DAILY RATE 0.00

BATCH SIZE 0.02

RECLAMATION ACTION .. NONE

***** WASTE ITEM NO. 10 PACKAGING MATERIAL

STATE SOLID

DENSITY 0.08 LBS/CU. FT.

ATTRIBUTES PLASTIC,PAPER CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYETHYLENE, CELLULOSE

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 0.75

DAILY RATE 0.00

BATCH SIZE 0.25

RECLAMATION ACTION .. REUSE AS

***** WASTE ITEM NO. 11 FECES

STATE SOLID

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES ORGANIC, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION ORGANIC

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 0.00

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. NONE

** MANNED SPACECRAFT WASTE GENERATION DATA **

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RUN NO. ** 2 **

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S/C SUBSYSTEM INVERTEBRATES EXPERIMENT
GROUP KEY 3.4.2

** EQUIPMENT/EXPERIMENT NO. 1 THE INVERTEBRATE ORGANISM AND ITS
S LIFE CYCLE

** WASTE SOURCE NO. 1 THE INVERTEBRATE ORGANISMS AND ITS LIFE
CYCLE

***** WASTE ITEM NO. 12 WATER
STATE LIQUID
DENSITY 0.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT .. H₂O
COMPOSITION HYDROGEN, OXYGEN
GENERATION DATA QUANTITY (LBS)
EXPT. TOTAL 0.00
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. NONE

S/C SUBSYSTEM INVERTEBRATES EXPERIMENT
GROUP KEY 3.4.2

** EQUIPMENT/EXPERIMENT NO. 2 THE ROLE OF GRAVITY IN MORPHOGENESIS

ASSOCIATED FPE NUMBER ... 5.26
S/C AREAS BIC-LABORATORY

**** WASTE SOURCE NO. 1 THE ROLE OF GRAVITY IN MORPHOGENESIS

DOCUMENT NO. 3.4.2.2.1*

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH, OR
BITAL MISSION REVISION DATED MAY 1969, N
ASA OFFICE MANNED SPACE

REFERENCE NO. 2 .. CULTURE METHODS IN INVERTEBRATE ANIMALS
1937 GALTSOFF, PAUL S. LUTZ, FRANK E.
WELCH, PAUL S. NEEDHAM, JAMES G. COMSTOCK PUBLISHING CO.

REFERENCE NO. 3 .. EFFECT ON A FLOOR BEETLE OF IRRADIATION DURING
SPACE FLIGHT, JUNE 1968, SLATER, JOHN V. BUCKHOLD, BRENDA TOBIAS, C.A.
BIOSCIENCE VOLUME 18, NO.6 595-597

***** WASTE ITEM NO. 1 WIRE MESH SIFTER

STATE SOLID
DENSITY 100.00 LBS/CU. FT.
ATTRIBUTES METAL, CONTAMINATED
ELEMENTS PRESENT ..

COMPOSITION STEEL

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 10.80

DAILY RATE 0.12

BATCH SIZE 0.00

RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 2 BOTTLE

STATE SOLID
DENSITY 6.70 LBS/CU. FT.
ATTRIBUTES PLASTIC, CONTAMINATED
ELEMENTS PRESENT ..

COMPOSITION POLYSTYRENE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 9.00

DAILY RATE 0.10

BATCH SIZE 0.00

RECLAMATION ACTION .. WASH

S/C SUBSYSTEM INVERTEBRATES EXPERIMENT
GROUP KEY 3.4.2

** EQUIPMENT/EXPERIMENT NO. 2 THE ROLE OF GRAVITY IN MORPHOGENESIS

**** WASTE SOURCE NO. 1 THE ROLE OF GRAVITY IN MORPHOGENESIS

***** WASTE ITEM NO. 3 SPATULA

STATE SOLID

DENSITY 20.00 LBS/CU. FT.

ATTRIBUTES PLASTIC, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYSTYRENE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.90

DAILY RATE 0.01

BATCH SIZE 0.00

RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 4 BRUSH

STATE SOLID

DENSITY 490.00 LBS/CU. FT.

ATTRIBUTES METAL, CAMELS HAIR

ELEMENTS PRESENT ..

COMPOSITION STEEL, CAMELS HAIR

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 2.79

DAILY RATE 0.03

BATCH SIZE 0.00

RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 5 FORCEPS

STATE SOLID

DENSITY 490.00 LBS/CU. FT.

ATTRIBUTES METAL CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION STEEL

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 6.30

DAILY RATE 0.07

BATCH SIZE 0.00

RECLAMATION ACTION .. WASH

S/C SUBSYSTEM INVERTEBRATES EXPERIMENT
GROUP KEY 3.4.2

** EQUIPMENT/EXPERIMENT NO. 2 THE ROLE OF GRAVITY IN MORPHOGENESIS

*** WASTE SOURCE NO. 1 THE ROLE OF GRAVITY IN MORPHOGENESIS

***** WASTE ITEM NO. 6 PACKAGING MATERIALS

STATE SOLID
DENSITY 0.08 LBS/CU. FT.
ATTRIBUTES PAPER, PLASTIC
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE, POLYETHYLENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.50
DAILY RATE 0.00
BATCH SIZE 0.25
RECLAMATION ACTION .. REUSE AS IS

***** WASTE ITEM NO. 7 CARBON DIOXIDE

STATE GAS
DENSITY 0.00 LBS/CU. FT.
ATTRIBUTES STABLE, DANGEROUS
ELEMENTS PRESENT .. CO
COMPOSITION CARBON, OXYGEN
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.00
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. REDUCE

***** WASTE ITEM NO. 8 WATER

STATE LIQUID
DENSITY 0.00 LBS/CU. FT.
ATTRIBUTES MIXTURE, EXPIRED
ELEMENTS PRESENT .. HQ
COMPOSITION HYDROGEN, OXYGEN
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.00
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. NONE

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S/C SUBSYSTEM INVERTEBRATES EXPERIMENT
GROUP, KEY 3.4.2

** EQUIPMENT/EXPERIMENT NO. 2 THE ROLE OF GRAVITY IN MORPHOGENESIS

*** WASTE SOURCE NO. 1 THE ROLE OF GRAVITY IN MORPHOGENESIS

*** WASTE ITEM NO. 9 FECES

STATE SOLID

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES ORGANIC, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION ORGANIC

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 0.00

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. NONE

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S/C SUBSYSTEM INVERTEBRATES EXPERIMENT

GROUP KEY 3.4.2

** EQUIPMENT/EXPERIMENT NO. 3 THE ROLE OF GRAVITY IN INVERTEBRATE METABOLISM

ASSOCIATED FPE NUMBER ... 5.26

S/C AREAS BIO-LABORATORY

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM INVERTEBRATES EXPERIMENT
GROUP KEY 3.4.2

** EQUIPMENT/EXPERIMENT NO. 4 THE ROLL OF GRAVITY IN AGING IN
INVERTEBRATES

ASSOCIATED FPE NUMBER ... 5.26
S/C AREAS BIO-LABORATORY

*** WASTE SOURCE NO. 1 THE ROLL OF GRAVITY IN AGING IN INVERTEB
RATES

DOCUMENT NO. 3.4.2.4.1

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSION REVISED DATED MAY 1969, NA
SA OFFICE OF MANNED SPACE FLIGHT.

REFERENCE NO. 2 .. CULTURE METHODS IN INVERTEBRATE ANIMALS
1937, GALTSOFF, PAUL S. LUTZ, FRANK E.
WELCH, PAUL S. NEEDHAM, JAMES G.

***** WASTE ITEM NO. 1 CARBON DIOXIDE

STATE GAS

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES STABLE, DANGEROUS

ELEMENTS PRESENT ..

COMPOSITION CARBON, OXYGEN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.00

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. REDUCE

***** WASTE ITEM NO. 2 FECES

STATE SOLID

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES ORGANIC, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION ORGANIC

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.00

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. NONE

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S/C SUBSYSTEM INVERTEBRATES EXPERIMENT
GROUP KEY 3.4.2

** EQUIPMENT/EXPERIMENT NO. 4 THE ROLL OF GRAVITY IN AGING IN
INVERTEBRATES

**** WASTE SOURCE NO. 1 THE ROLL OF GRAVITY IN AGING IN INVERTEB
RATES

**** ** WASTE ITEM NO. 3 WATER
STATE LIQUID
DENSITY 0.00 LBS/CU. FT.
ATTRIBUTES MIXTURE, EXPIRED
ELEMENTS PRESENT .. HO
COMPOSITION HYDROGEN, OXYGEN
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.00
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. NONE

***** WASTE ITEM NO. 4 DROPPING BOTTLE WITH MILK AND WATER
STATE SOLID SUSPENSION
DENSITY 83.37 LBS/CU. FT.
ATTRIBUTES GLASS
ELEMENTS PRESENT ..
COMPOSITION ORGANIC, BOROSILICATES
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.72
DAILY RATE 0.00
BATCH SIZE 0.06
RECLAMATION ACTION .. NONE

**** ** WASTE ITEM NO. 5 ANAESTHESIZING CHAMBER
STATE SOLID
DENSITY 6.70 LBS/CU. FT.
ATTRIBUTES PLASTIC
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 18.00
DAILY RATE 0.20
BATCH SIZE 0.00
RECLAMATION ACTION .. WASH

S/C SUBSYSTEM INVERTEBRATES EXPERIMENT
GROUP KEY 3.4.2

** EQUIPMENT/EXPERIMENT NO. 4 THE ROLL OF GRAVITY IN AGING IN
INVERTEBRATES

*** WASTE SOURCE NO. 1 THE ROLL OF GRAVITY IN AGING IN INVERTEB
RATES

***** WASTE ITEM NO. 6 WIRE MESH CAGE

STATE SOLID

DENSITY 100.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT ..

COMPOSITION STEEL

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 1.50

DAILY RATE 0.00

BATCH SIZE 1.50

RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 7 WATCH GLASS

STATE SOLID

DENSITY 5.16 LBS/CU. FT.

ATTRIBUTES GLASS

ELEMENTS PRESENT ..

COMPOSITION BOROSILICATES

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 9.00

DAILY RATE 0.10

BATCH SIZE 0.00

RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 8 COUNTING PLATE

STATE SOLID

DENSITY 42.17 LBS/CU. FT.

ATTRIBUTES GLASS, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION BOROSILICATES

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 9.00

DAILY RATE 0.10

BATCH SIZE 0.00

RECLAMATION ACTION .. WASH

S/C SUBSYSTEM INVERTEBRATES EXPERIMENT
GROUP KEY 3.4.2

** EQUIPMENT/EXPERIMENT NO. 4 THE ROLL OF GRAVITY IN AGING IN
INVERTEBRATES

*** WASTE SOURCE NO. 1 THE ROLL OF GRAVITY IN AGING IN INVERTEB
RATES

**** WASTE ITEM NO. 9 FORCEPS

STATE SOLID

DENSITY 490.00 LBS/CU. FT.

ATTRIBUTES METAL, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION STEEL

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

6.30

DAILY RATE

0.07

BATCH SIZE

0.00

RECLAMATION ACTION .. WASH

**** WASTE ITEM NO. 10 BRUSH

STATE SOLID

DENSITY 490.00 LBS/CU. FT.

ATTRIBUTES METAL, ORGANIC, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION STEEL, CAMELS HAIR

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

2.79

DAILY RATE

0.03

BATCH SIZE

0.00

RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 11 COTTEN PLUG, GAUZE

STATE SOLID

DENSITY 13.77 LBS/CU. FT.

ATTRIBUTES TEXTILE, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

1.44

DAILY RATE

0.16

BATCH SIZE

0.00

RECLAMATION ACTION .. NONE

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S/C SUBSYSTEM INVERTEBRATES EXPERIMENT
GROUP KEY 3.4.2

** EQUIPMENT/EXPERIMENT NO. 4 THE ROLL OF GRAVITY IN AGING IN
INVERTEBRATES

*** WASTE SOURCE NO. 1 THE ROLL OF GRAVITY IN AGING IN INVERTEB
RATES

**** WASTE ITEM NO. 12 PACKAGING MATERIAL
STATE SOLID
DENSITY 0.08 LBS/CU. FT.
ATTRIBUTES PLASTIC, PAPER, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYETHYLENE, CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 3.00
DAILY RATE 0.00
BATCH SIZE 0.25
REFCLAMATION ACTION .. REUSE AS IS

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RUN NO. ** 2 **

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S/C SUBSYSTEM INVERTEBRATES EXPERIMENT

GROUP KEY 3.4.2

** EQUIPMENT/EXPERIMENT NO. 5 GENETIC PHENOMINA IN INVERTEBRATES

ASSOCIATED FPE NUMBER ... 5.26

S/C AREAS BIC-LABORATORY

*** WASTE SOURCE NO. 1 MUTABILITY IN ADULT DROSOPHILA

DOCUMENT NO. 3.4.2.5.1

PREFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH ORBITAL MISSION REVISION DATED MAY 1969, NASA OFFICE OF MANNED SPACE FLIGHT.

REFERENCE NO. 2 .. CULTURE METHODS FOR INVERTEBRATE ANIMALS
1937, GALSTOFF, PAUL S., LUTZ, FRANK E.,
WELCH, PAUL S., NEEDHAM, JAMES G., COMSTOCK PUBLISHING COMPANY

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S/C SUBSYSTEM INVERTEBRATES EXPERIMENT
GROUP KEY 3.4.2

** EQUIPMENT/EXPERIMENT NO. 5 GENETIC PHENOMINA IN INVERTEBRATES

**** WASTE SOURCE NO. 2 RADIATION REPAIR MECHANISMS IN CHROMOSOMES

DOCUMENT NO. 3.4.2.5.2

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH ORBITAL MISSION REVISION DATED MAY 1969,
NASA OFFICE OF MANNED SPACE FLIGHT

REFERENCE NO. 2 .. CULTURE METHODS FOR INVERTEBRATE ANIMALS
1937. GALTISOFF, PAUL S. LUTZ, FRANK E.
WELCH, PAUL S. NEEDHAM, JAMES C. COMSTOCK PUBLISHING CO.

**** WASTE ITEM NO. 1 VIALS
STATE SOLID
DENSITY 51.84 LBS/CU. FT.
ATTRIBUTES GLASS, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION BOROSILICATES
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 54.00
DAILY RATE 0.60
BATCH SIZE 0.00
RECLAMATION ACTION .. WASH

**** WASTE ITEM NO. 2 COTTON PLUGS
STATE SOLID
DENSITY 13.77 LBS/CU. FT.
ATTRIBUTES TEXTILE, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 14.40
DAILY RATE 0.16
BATCH SIZE 0.00
RECLAMATION ACTION .. NONE

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S/C SUBSYSTEM INVERTEBRATES EXPERIMENT
GROUP KEY 3.4.2

** EQUIPMENT/EXPERIMENT NO. 5 GENETIC PHENOMENA IN INVERTEBRATES

*** WASTE SOURCE NO. 2 RADIATION REPAIR MECHANISMS IN CHROMOSOMES

***** WASTE ITEM NO. 3 HONEY, DROPPING BOTTLE
STATE SOLID
DENSITY 52.87 LBS/CU. FT.
ATTRIBUTES ORGANIC CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION ORGANIC, BOROSILICATES
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.48
DAILY RATE 0.00
BATCH SIZE 0.04
RECLAMATION ACTION .. NONE

***** WASTE ITEM NO. 4 FORCEPS
STATE SOLID
DENSITY 490.00 LBS/CU. FT.
ATTRIBUTES STEEL, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION STEEL
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 6.38
DAILY RATE 0.07
BATCH SIZE 0.00
RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 5 ANAESTHESIZING AGENT, DROPPING BO
STATE SOLID
DENSITY 52.87 LBS/CU. FT.
ATTRIBUTES GLASS, LIQUID, DANGEROUS
ELEMENTS PRESENT ..
COMPOSITION ANAESTHETIC, BOROSILICATES
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL - 0.48
DAILY RATE 0.00
BATCH SIZE 0.04
RECLAMATION ACTION .. NONE

** MANNED SPACECRAFT WASTE GENERATION DATA **

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S/C SUBSYSTEM INVERTEBRATES EXPERIMENT
GROUP KEY 3.4.2

** EQUIPMENT/EXPERIMENT NO. 5 GENETIC PHENOMINA IN INVERTEBRAT
ES

*** WASTE SOURCE NO. 2 RADIATION REPAIR MECHANISMS IN CHROMOSOM
ES

***** WASTE ITEM NO. 6 ANAESTHESIZING CHAMBER

STATE SOLID
DENSITY 6.70 LBS/CU. FT.
ATTRIBUTES PLASTIC, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 18.00
DAILY RATE 0.20
BATCH SIZE 0.00

RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 7 PACKAGING MATERIAL

STATE SOLID
DENSITY 0.08 LBS/CU. FT.
ATTRIBUTES PLASTIC, PAPER
ELEMENTS PRESENT ..
COMPOSITION POLYETHYLENE, CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 3.00
DAILY RATE 0.00
BATCH SIZE 0.25

RECLAMATION ACTION .. REUSE AS IS

***** WASTE ITEM NO. 8 BRUSH

STATE SOLID
DENSITY 490.00 LBS/CU. FT.
ATTRIBUTES METAL, ORGANIC, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION STEEL, CAMEL HAIR
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 2.79
DAILY RATE 0.03
BATCH SIZE 0.00

RECLAMATION ACTION .. WASH

S/C SUBSYSTEM INVERTEBRATES EXPERIMENT
 GROUP KEY 3.4.2

** EQUIPMENT/EXPERIMENT NO. 5 GENETIC PHENOMINA IN INVERTEBRATES

**** WASTE SOURCE NO. 2 RADIATION REPAIR MECHANISMS IN CHROMOSOMES

**** ** WASTE ITEM NO. 9 WATCH GLASS
 STATE SOLID
 DENSITY 5.16 LBS/CU. FT.
 ATTRIBUTES GLASS, CONTAMINATED
 ELEMENTS PRESENT ..
 COMPOSITION BOROSILICATES
 GENERATION DATA ... QUANTITY (LBS)
 EXPT. TOTAL 9.00
 DAILY RATE 0.10
 BATCH SIZE 0.00
 RECLAMATION ACTION ..

***** WASTE ITEM NO. 10 WIRE MESH CAGE
 STATE SOLID
 DENSITY 490.00 LBS/CU. FT.
 ATTRIBUTES METAL, CONTAMINATED
 ELEMENTS PRESENT ..
 COMPOSITION STEEL
 GENERATION DATA ... QUANTITY (LBS)
 EXPT. TOTAL 1.50
 DAILY RATE 0.00
 BATCH SIZE 1.50
 RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 11 GAS
 STATE GAS
 DENSITY 0.00 LBS/CU. FT.
 ATTRIBUTES STABLE, DANGEROUS
 ELEMENTS PRESENT .. HO
 COMPOSITION CARBON, OXYGEN
 GENERATION DATA ... QUANTITY (LBS)
 EXPT. TOTAL 0.00
 DAILY RATE 0.00
 BATCH SIZE 0.00
 RECLAMATION ACTION .. REDUCE

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RUN NO. ** 2 **

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S/C SUBSYSTEM INVERTEBRATES EXPERIMENT
GROUP KEY 3.4.2

** EQUIPMENT/EXPERIMENT NO. 5 GENETIC PHENOMINA IN INVERTEBRATES

*** WASTE SOURCE NO. 2 RADIATION REPAIR MECHANISMS IN CHROMOSOMES

*** WASTE ITEM NO. 12 WATER
STATE LIQUID
DENSITY 0.00 LBS/CU. FT.
ATTRIBUTES MIXTURE, EXPIRED
ELEMENTS PRESENT .. HO
COMPOSITION HYDROGEN, OXYGEN
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.00
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. NONE

*** WASTE ITEM NO. 13 FECES
STATE SOLID
DENSITY 0.00 LBS/CU. FT.
ATTRIBUTES ORGANIC, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION ORGANIC
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.00
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. NONE

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S/C SUBSYSTEM INVERTEBRATES EXPERIMENT
GROUP KEY 3.4.2

** EQUIPMENT/EXPERIMENT NO. 6 BIORYTHMICITY IN INVERTEBRATES

ASSOCIATED FPE NUMBER ... 5.26
S/C AREAS BIC-LABORATORY

*** WASTE SOURCE NO. 1 CIRCADIAN RYTHMS IN INVERTEBRATES

DOCUMENT NO. 3.4.2.6.1

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSION REVISION DATED MAY 1969, N
ASA OFFICE OF MANNED SPACE FLIGHT

REFERENCE NO. 2 .. CULTURE METHODS FOR INVERTEBRATE ANIMALS
1937, GALTISOFF, PAUL S. LUTZ, FRANK E. W
ELCH, PAUL S. NEEDHAM, JAMES G. COMST
OCK PUBLISHING CO.

**** WASTE ITEM NO. 1 BELL JAR

STATE SOLID
DENSITY 8.00 LBS/CU. FT.
ATTRIBUTES PLASTIC, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.20
DAILY RATE 0.00
BATCH SIZE 0.40

RECLAMATION ACTION .. WASH

**** WASTE ITEM NO. 2 WATER

STATE LIQUID
DENSITY 62.00 LBS/CU. FT.
ATTRIBUTES MIXTURE, EXPIRED
ELEMENTS PRESENT .. HC
COMPOSITION HYDROGEN, OXYGEN
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.98
DAILY RATE 0.02
BATCH SIZE 0.00

RECLAMATION ACTION .. NONE

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM INVERTEBRATES EXPERIMENT
GROUP KEY 3.4.2

** EQUIPMENT/EXPERIMENT NO. 6BIORHYTHMICITY IN INVERTEBRATES
*** WASTE SOURCE NO. 1 CIRCADIAN RYTHMS IN INVEPTERRATES

*** WASTE ITEM NO. 3 WIRE MESH
STATE SOLID
DENSITY 100.00 LBS/CU. FT.
ATTRIBUTES METAL, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION STEEL
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.36
DAILY RATE 0.00
BATCH SIZE 0.12
RECLAMATION ACTION .. WASH

*** WASTE ITEM NO. 4 CHEESE CLOTH
STATE SOLID
DENSITY 13.77 LBS/CU. FT.
ATTRIBUTES TEXTILE, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.03
DAILY RATE 0.00
BATCH SIZE 0.01
RECLAMATION ACTION .. NONE

*** WASTE ITEM NO. 5 WATCH GLASS
STATE SOLID
DENSITY 5.16 LBS/CU. FT.
ATTRIBUTES GLASS, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION BOROSILICATES
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 9.00
DAILY RATE 0.10
BATCH SIZE 0.00
RECLAMATION ACTION .. WASH

S/C SUBSYSTEM INVERTEBRATES EXPERIMENT
 GROUP KEY 3.4.2

** EQUIPMENT/EXPERIMENT NO. 6BIORHYTHMICITY IN INVERTEBRATES
 *** WASTE SOURCE NO. 1 CIRCADIAN RYTHMS IN INVERTEBRATES

***** WASTE ITEM NO. 6 FORCEPS
 STATE SOLID
 DENSITY 490.00 LBS/CU. FT.
 ATTRIBUTES METAL, CONTAMINATED
 ELEMENTS PRESENT ..
 COMPOSITION STEEL
 GENERATION DATA ... QUANTITY (LBS)
 EXPT. TOTAL 6.30
 DAILY RATE 0.07
 BATCH SIZE 0.00
 RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 7 BRUSH
 STATE SOLID
 DENSITY 490.00 LBS/CU. FT.
 ATTRIBUTES METAL, CAMELS HAIR
 ELEMENTS PRESENT ..
 COMPOSITION STEEL,CAMELS HAIR
 GENERATION DATA ... QUANTITY (LBS)
 EXPT. TOTAL 2.79
 DAILY RATE 0.03
 BATCH SIZE 0.00
 RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 8 CARBON DIOXIDE
 STATE GAS
 DENSITY 0.00 LBS/CU. FT.
 ATTRIBUTES STABLE, DANGEROUS FUMES
 ELEMENTS PRESENT .. CO2
 COMPOSITION CARBON AND OXYGEN
 GENERATION DATA ... QUANTITY (LBS)
 EXPT. TOTAL 0.00
 DAILY RATE 0.00
 BATCH SIZE 0.00
 RECLAMATION ACTION .. REDUCE

S/C SUBSYSTEM INVERTEBRATES EXPERIMENT
GROUP KEY 3.4.2

** EQUIPMENT/EXPERIMENT NO. 6BIORHYTHMICITY IN INVERTEBRATES
*** WASTE SOURCE NO. 1 CIRCADIAN RYTHMS IN INVERTEBRATES

*** WASTE ITEM NO. 9 FECES
STATE SOLID
DENSITY 0.00 LBS/CU. FT.
ATTRIBUTES ORGANIC, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION ORGANIC
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.00
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. NONE

✓ *** WASTE ITEM NO. 10 PACKAGING MATERIAL
STATE SOLID
DENSITY 0.00 LBS/CU. FT.
ATTRIBUTES PAPER, PLASTIC, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE, POLYETHYLENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.90
DAILY RATE 0.01
BATCH SIZE 0.00
RECLAMATION ACTION .. REUSE AS IS

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S/C SUBSYSTEM INVERTEBRATES EXPERIMENT
GROUP KEY 3.4.2

** EQUIPMENT/EXPERIMENT NO. 6 BICRYTHMICITY IN INVERTEBRATES

*** WASTE SOURCE NO. 2 BICRYTHMICITY IN FIDDLER CRABS

DOCUMENT NO. 3.4.2.6.2

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSION PEVISION DATED MAY 1969, N
ASA OFFICE OF MANNED SPACE FLIGHT

REFERENCE NO. 2 .. CULTURE METHODS IN INVERTEBRATE ANIMALS
1937, GALTSTAFF, PAUL S. LUTZ, FRANK E.
WELCH, PAUL S. NEEDHAM, JAMES G. COMST
OCK PUBLISHING CO.

***** WASTE ITEM NO. 1 AQUARIUM TANK
STATE SOLID
DENSITY 10.45 LBS/CU. FT.
ATTRIBUTES GLASS, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION BOROSILICATES
GENERATION DATA ... -- QUANTITY (LBS)
EXPT. TOTAL 48.00
DAILY RATE 0.00
BATCH SIZE 16.00
RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 2 SAND, WET
STATE SOLID
DENSITY 120.00 LBS/CU. FT.
ATTRIBUTES SAND
ELEMENTS PRESENT ..
COMPOSITION SILICATES
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 6.00
DAILY RATE 0.00
BATCH SIZE 2.00
RECLAMATION ACTION .. WASH

S/C SUBSYSTEM INVERTEBRATES EXPERIMENT
GROUP KEY 3.4.2

** EQUIPMENT/EXPERIMENT NO. 6BIORHYTHMICITY IN INVERTEBRATES
*** WASTE SOURCE NO. 2 BICRYTHMICITY IN FIDDLER CRABS
.**

***** WASTE ITEM NO. 3 WATER
STATE LIQUID
DENSITY 62.00 LBS/CU. FT.
ATTRIBUTES MIXTURE, CONTAMINATED
ELEMENTS PRESENT .. HO
COMPOSITION HYDROGEN, OXYGEN
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 5.40
DAILY RATE 0.00
BATCH SIZE 1.80
RECLAMATION ACTION .. STERILIZE

***** WASTE ITEM NO. 4 AQUATIC PLANTS
STATE SOLID
DENSITY 15.00 LBS/CU. FT.
ATTRIBUTES ORGANIC, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION ORGANIC
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.54
DAILY RATE 0.00
BATCH SIZE 0.18
RECLAMATION ACTION .. REUSE AS IS

***** WASTE ITEM NO. 5 DAPHNIA CONTAINER
STATE SOLID
DENSITY 6.70 LBS/CU. FT.
ATTRIBUTES PLASTIC, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.60
DAILY RATE 0.00
BATCH SIZE 0.20
RECLAMATION ACTION .. WASH

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM INVERTEBRATES EXPERIMENT
GROUP KEY 3.4.2

** EQUIPMENT/EXPERIMENT NO. 6BIORYTHMICITY IN INVERTEBRATES
*** WASTE SOURCE NO. 2 BICRYTHMICITY IN FIDDLER CRABS

***** WASTE ITEM NO. 6 YEAST AND DROPPING BOTTLE
STATE SOLID
DENSITY 52.87 LBS/CU. FT.
ATTRIBUTES GLASS AND ORGANIC CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION YEAST AND BOROSILICATES
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.12
DAILY RATE 0.00
BATCH SIZE 0.04
RECLAMATION ACTION .. MUST BE ACTIVATED

/ ***** WASTE ITEM NO. 7 PACKAGING MATERIAL
STATE SOLID
DENSITY 0.08 LBS/CU. FT.
ATTRIBUTES PLASTIC AND PAPER CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE AND POLYTHELENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.75
DAILY RATE 0.00
BATCH SIZE 0.25
RECLAMATION ACTION .. REUSE AS IS

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S/C SUBSYSTEM INVERTEBRATES EXPERIMENT
GROUP KEY 3.4.2

** EQUIPMENT/EXPERIMENT NO. 7 BEHAVIOR INFLUENCES IN INVERTEBRATES

ASSOCIATED FPE NUMBER ... 5.26
S/C AREAS BIO-LABORATORY

**** WASTE SOURCE NO. 1 BEHAVIOR INFLUENCES IN BEES

DOCUMENT NO. 3.4.2.7.1

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSION REVISION DATED MAY 1969, N
ASA OFFICE OF MANNED SPACE FLIGHT

REFERENCE NO. 2 .. CULTURE METHODS FOR INVERTEBRATE ANIMALS
1937, GALT SOFF, PAUL S. LUTZ, FRANK E. W
ELCH, PAUL S. NEEHAM, JAMES G. COMST
OCK PUBLISHING CO.

***** WASTE ITEM NO. 1 VIALS

STATE SOLID
DENSITY 51.84 LBS/CU. FT.
ATTRIBUTES GLASS, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION BOROSILICATES

GENERATION DATA ...	QUANTITY (LBS) ,
EXPT. TOTAL	54.00
DAILY RATE	0.60
BATCH SIZE	0.00

RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 2 COTTON PLUGS

STATE SOLID
DENSITY 13.77 LBS/CU. FT.
ATTRIBUTES TEXTILE, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE

GENERATION DATA ...	QUANTITY (LBS)
EXPT. TOTAL	14.40
DAILY RATE	0.16
BATCH SIZE	0.00

RECLAMATION ACTION .. NONE

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RUN NO. ** 2 **

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S/C SUBSYSTEM INVERTEBRATES EXPERIMENT
GROUP KEY 3.4.2

** EQUIPMENT/EXPERIMENT NO. 7 BEHAVIOR INFLUENCES IN INVERTEBRATES

**** WASTE SOURCE NO. 1 BEHAVIOR INFLUENCES IN BEES

-**

***** WASTE ITEM NO. 3 LIQUID POLLEN, BOTTLE
STATE SOLID
DENSITY 52.87 LBS/CU. FT.
ATTRIBUTES ORGANIC, GLASS
ELEMENTS PRESENT ..
COMPOSITION ORGANIC, BOROSILICATES
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.48
DAILY RATE 0.00
BATCH SIZE 0.04
RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 4 ANAESTHESIZING AGENT, BOTTLE
STATE SOLID
DENSITY 52.87 LBS/CU. FT.
ATTRIBUTES GLASS, LIQUID, DANGEROUS
ELEMENTS PRESENT ..
COMPOSITION ANAESTHETIC, GLASS
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.48
DAILY RATE 0.00
BATCH SIZE 0.04
RECLAMATION ACTION .. NONE

***** WASTE ITEM NO. 5 ANAESTHESIZING CHAMBER
STATE SOLID
DENSITY 6.70 LBS/CU. FT.
ATTRIBUTES PLASTIC, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 18.00
DAILY RATE 0.20
BATCH SIZE 0.00
RECLAMATION ACTION .. WASH

S/C SUBSYSTEM INVERTEBRATES EXPERIMENT
GROUP KEY 3.4.2

** EQUIPMENT/EXPERIMENT NO. 7 BEHAVIOR INFLUENCES IN INVERTEBRATES

**** WASTE SOURCE NO. 1 BEHAVIOR INFLUENCES IN BEES

***** WASTE ITEM NO. 6 FORCEPS

STATE SOLID

DENSITY 490.00 LBS/CU. FT.

ATTRIBUTES METAL, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION STEEL

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

6.30

DAILY RATE

0.07

BATCH SIZE

0.00

RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 7 BRUSH

STATE SOLID

DENSITY 490.00 LBS/CU. FT.

ATTRIBUTES METAL, CAMELS HAIR, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION STEEL, CAMELS HAIR

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

2.79

DAILY RATE

0.03

BATCH SIZE

0.00

RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 8 WATCH GLASS

STATE SOLID

DENSITY 5.16 LBS/CU. FT.

ATTRIBUTES GLASS, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION BOROSILICATES

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

9.00

DAILY RATE

0.10

BATCH SIZE

0.00

RECLAMATION ACTION .. WASH

S/C SUBSYSTEM INVERTEBRATES EXPERIMENT
GROUP KEY 3.4.2

** EQUIPMENT/EXPERIMENT NO. 7 BEHAVIOR INFLUENCES IN INVERTEBRATES

*** WASTE SOURCE NO. 1 BEHAVIOR INFLUENCES IN BEES

***** WASTE ITEM NO. 9 WIRE CAGE

STATE SOLID

DENSITY 6.00 LBS/CU. FT.

ATTRIBUTES METAL CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION STEEL

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.50

DAILY RATE 0.00

BATCH SIZE 1.50

RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 10 PACKAGING MATERIAL

STATE SOLID

DENSITY 0.08 LBS/CU. FT.

ATTRIBUTES PLASTIC, PAPER, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE, POLYVINYL

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 3.00

DAILY RATE 0.00

BATCH SIZE 0.25

RECLAMATION ACTION .. REUSE AS IS

***** WASTE ITEM NO. 11 CARBON DIOXIDE

STATE GAS

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES STABLE, DANGEROUS

ELEMENTS PRESENT .. CO2

COMPOSITION CARBON, OXYGEN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.00

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. REDUCE

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM INVERTEBRATES EXPERIMENT
GROUP KEY 3.4.2

** EQUIPMENT/EXPERIMENT NO. 7 BEHAVIOR INFLUENCES IN INVERTEBRATES

**** WASTE SOURCE NO. 1 BEHAVIOR INFLUENCES IN BEES

***** WASTE ITEM NO. 12 WATER
STATE LIQUID
DENSITY 0.00 LBS/CU. FT.
ATTRIBUTES EXPIRED ORGANIC
ELEMENTS PRESENT .. H2O, H
COMPOSITION WATER HYDROGEN
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.00
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. NONE

***** WASTE ITEM NO. 13 FECES
STATE SOLID
DENSITY 0.00 LBS/CU. FT.
ATTRIBUTES ORGANIC, CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION ORGANIC
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.00
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. NONE

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM INVERTEBRATES EXPERIMENT
GROUP KEY 3.4.2

** EQUIPMENT/EXPERIMENT NO. 7 BEHAVIOR INFLUENCES IN INVERTEBRATES

*** WASTE SOURCE NO. 2 ORIENTATION AND GEOSENSING IN SPIDERS

DOCUMENT NO. 3.4.2.7.2

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH ORBITAL MISSION REVISION DATED MAY 1969, NASA OFFICE OF MANNED SPACE FLIGHT

REFERENCE NO. 2 .. CULTURE METHODS FOR INVERTEBRATE ANIMALS 1937, GOLTSOFF, PAUL S. LUTZ, FRANK W. ELCH, PAUL S. NEEDHAM, JAMES G. CCMST BOOK PUBLISHING CO.

REFERENCE NO. 3 .. ALL LIQUID POLLEN SUBSTITUTE FOR HONEY BEE COLONIES, AMERICAN BEE J 107(4)134-135 1967, WEAVER, NEVIN, CHANTONISA.R.

***** WASTE ITEM NO. 1 WIRE MESH CAGE

STATE SOLID

DENSITY 100.00 LBS/CU. FT.

ATTRIBUTES METAL, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION STEEL

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

1.50

DAILY RATE

0.00

BATCH SIZE

1.50

RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 2 FECES

STATE SOLID

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES ORGANIC, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION ORGANIC

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

0.00

DAILY RATE

0.00

BATCH SIZE

0.00

RECLAMATION ACTION .. NONE

** MANNED SPACECRAFT WASTE GENERATION DATA **

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RUN NO. ** 2 **

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S/C SUBSYSTEM INVERTEBRATES EXPERIMENT
GROUP KEY 3.4.2

** EQUIPMENT/EXPERIMENT NO. 7 BEHAVIOR INFLUENCES IN INVERTEBRATES

*** WASTE SOURCE NO. 2 ORIENTATION AND GEOSENSING IN SPIDERS

***** WASTE ITEM NO. 3 CARBON DIOXIDE

STATE GAS

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES STABLE DANGEROUS FUMES

ELEMENTS PRESENT ..

COMPOSITION CARBON AND OXYGEN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.00

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. REDUCE

***** WASTE ITEM NO. 4 WATER

STATE LIQUID

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES MIXTURE EXPIRED

ELEMENTS PRESENT .. H2O

COMPOSITION HYDROGEN AND OXYGEN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.00

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. NONE

***** WASTE ITEM NO. 5 PACKAGING MATERIAL

STATE SOLID

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES PAPER, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.60

DAILY RATE 0.00

BATCH SIZE 0.05

RECLAMATION ACTION .. REUSE AS IS

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS
GROUP KEY 3.4.3

BASIC FUNCTION PERFORM MISSION TASKS
FUNCTIONAL REQUIREMENT BIOLOGICAL SCIENCES AND BIOTECHNOLOGY STUDIES

** EQUIPMENT/EXPERIMENT NO. 1 THE ROLE OF GRAVITY IN CARDIOVASCULAR FUNCTION

ASSOCIATED FPE NUMBER ...
S/C AREAS BIC-LABORATORY
ANIMAL HOUSING

**** WASTE SOURCE NO. 1 THE ROLE OF GRAVITY IN CARDIOVASCULAR FUNCTION
DOCUMENT NO. 3.4.3.1.1*

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH ORBITAL MISSIONS REVISION DATED MAY 1969, NASA OFFICE OF MANNED SPACE FLIGHT.

REFERENCE NO. 2 .. GROWTH INCLUDING REPRODUCTION AND MORPHOLOGICAL DEVELOPMENT, BIO. HANDBOOKS 1962, ED. BY ALTMAN P.L., AND DITTMER D.S., FED. OF AMERICAN SOCIETIES FOR EXPERIMENTAL BIOLOGY

REFERENCE NO. 3 .. COMPARATIVE ANIMAL PHYSIOLOGY 1961 SECOND EDITION, PROSSER C.L. AND BROWN, F.A. JR.; W.B. SAUNDERS & CO.

REFERENCE NO. 4 .. STANDARD VALUES IN NUTRITION AND METABOLISM 1953, EDITED BY ALBRITTON E.C., WRIGHT-PATTERSON AIR DEVELOPMENT CENTER, WRIGHT-PATTERSON AIR FORCE BASE, OHIO.

REFERENCE NO. 5 .. ANIMALS FOR RESEARCH-PRINCIPALS OF BREEDING AND MANAGEMENT 1963, EDITED BY LANE PETER W., ACADEMIC PRESS.

***** WASTE ITEM NO. 1 CAGES (3)
STATE SOLID
DENSITY 100.00 LBS/CU. FT.
ATTRIBUTES METAL CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION STEEL
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 270.00
DAILY RATE 4.50
BATCH SIZE 0.00
RECLAMATION ACTION .. WASH

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS
GROUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 1 THE ROLE OF GRAVITY IN CARDIOVAS
CULAR FUNCTION

**** WASTE SOURCE NO. 1 THE ROLE OF GRAVITY IN CARDIOVASCULAR FU
NCTION

***** WASTE ITEM NO. 2 FOOD DISH

STATE SOLID

DENSITY 8.64 LBS/CU. FT.

ATTRIBUTES PLASTIC CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYSTYRENE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 2.70

DAILY RATE 0.04

BATCH SIZE 0.00

RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 3 WATER BOTTLE

STATE SOLID

DENSITY 46.66 LBS/CU. FT.

ATTRIBUTES GLASS CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION BOROSILICATES

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 45.00

DAILY RATE 0.75

BATCH SIZE 0.00

RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 4 WIPES WITH BACTERICIDE HAIR

STATE SOLID

DENSITY 6.07 LBS/CU. FT.

ATTRIBUTES ORGANIC , PAPER , BACTERICIDE

ELEMENTS PRESENT ..

COMPOSITION ORGANIC , PAPER , BACTERICIDE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 8.40

DAILY RATE 0.14

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS
 GROUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 1 THE ROLE OF GRAVITY IN CARDIOVASCULAR FUNCTION

*** WASTE SOURCE NO. 1 THE ROLE OF GRAVITY IN CARDIOVASCULAR FUNCTION

*** *****

***** WASTE ITEM NO. 5 URINE, FECES, PAPER TOWEL, FECAL COLLECTBAG
 STATE SOLID LIQUID
 DENSITY 134.78 LBS/CU. FT.
 ATTRIBUTES ORGANIC, PAPER, PLASTIC CONTAMINATED
 ELEMENTS PRESENT ..
 COMPOSITION ORGANIC, CELLULOSE, TEFLON
 GENERATION DATA ... QUANTITY (LBS)
 EXPT. TOTAL 26.20
 DAILY RATE 0.47
 BATCH SIZE 0.00
 RECLAMATION ACTION .. kms

***** WASTE ITEM NO. 6 PACKAGING MATERIAL
 STATE SOLID
 DENSITY 0.08 LBS/CU. FT.
 ATTRIBUTES PAPER, PLASTIC CONTAMINATED
 ELEMENTS PRESENT ..
 COMPOSITION CELLULOSE, POLYETHELENE
 GENERATION DATA ... QUANTITY (LBS)
 EXPT. TOTAL 1.20
 DAILY RATE 0.02
 BATCH SIZE 0.00
 RECLAMATION ACTION .. REUSE AS IS

11/30/70

RUN NO: ** 2 **

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S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS
GROUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 2 THE LIFE CYCLE OF RODENTS

ASSOCIATED FPE NUMBER ...
S/C AREAS BIO-LABORATORY
ANIMAL HOUSING

**** WASTE SOURCE NO. 1 PREGNANCY AND GROWTH IN THE MAMMALIAN OR
GANISM

DOCUMENT NO. 3.4.3.2.1

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSION REVISION DATED MAY 1969, N
ASA OFFICE OF MANNED SPACE FLIGHT.

REFERENCE NO. 2 .. STANDARD VALUES IN NUTRITION AND METABOL
ISM 1953 ALBRITTON, E.C. EDITOR WRIGHT AI
R DEVELOPMENT CENTER, WRIGHT-PATTERSON A
IR FORCE BASE, OHIO.

REFERENCE NO. 3 .. COMPARATIVE ANIMAL PHYSIOLOGY 1961 SECON
D EDITION, PROSSER, C.R. AND BROWN, F.A.
, JR., W.B. SAUNDERS & CO.

REFERENCE NO. 4 .. ANIMALS FOR RESEARCH-PRINCIPALS OF BREED
ING AND MANAGEMENT 1963, LANE-PETTER, W.
EDITOR, ACADEMIC PRESS.

REFERENCE NO. 5 .. GROWTH INCLUDING REPRODUCTION AND MORPHO
LOGICAL DEVEL., BIO. HANDBOOKS 1962, ED.
BY ALTMAN, P.L., AND DITTMER, D.S., FED.
OF AMERICAN SOCIETIES FOR EXPERIMENTAL

***** WASTE ITEM NO. 1 CAGES (24)

STATE SOLID

DENSITY 100.00 LBS/CU. FT.

ATTRIBUTES METAL CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION STEEL

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 12140.00

DAILY RATE 36.00

BATCH SIZE 0.00

RECLAMATION ACTION .. WASH

** MANNED SPACECRAFT WASTE GENERATION DATA **

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RUN NO. ** 2 **

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S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS
GROUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 2 THE LIFE CYCLE OF RODENTS
*** WASTE SOURCE NO. 1 PREGNANCY AND GROWTH IN THE MAMMALIAN OR
GANISM

*** * WASTE ITEM NO. 2 WIPES, BACTERICIDE, HAIR
STATE SOLID
DENSITY 6.07 LBS/CU. FT.
ATTRIBUTES ORGANIC, BACTERICIDE, PAPER CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION ORGANIC, BACTERICIDE, CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 306.60
DAILY RATE 0.84
BATCH SIZE 6.07
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 3 SYRINGES
STATE SOLID
DENSITY 35.60 LBS/CU. FT.
ATTRIBUTES PLASTIC CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 8.11
DAILY RATE 0.00
BATCH SIZE 0.16
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 4 GAUZE PADS, ALCOHOL
STATE SOLID
DENSITY 0.17 LBS/CU. FT.
ATTRIBUTES GAUZE, ALCOHOL CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE, ALCOHOL
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.25
DAILY RATE 0.00
BATCH SIZE 0.02
RECLAMATION ACTION .. N/R

S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS
GROUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 2 THE LIFE CYCLE OF RODENTS
*** WASTE SOURCE NO. 1 PREGNANCY AND GROWTH IN THE MAMMALIAN OR
GANISM

***** WASTE ITEM NO. 5 WATER BOTTLE
STATE SOLID
DENSITY 46.66 LBS/CU. FT.
ATTRIBUTES GLASS CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION BOROSILICATES
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 2190.00
DAILY RATE 61.00
BATCH SIZE 0.00
RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 6 FOOD DISH
STATE SOLID
DENSITY 8.64 LBS/CU. FT.
ATTRIBUTES PLASTIC CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 132.40
DAILY RATE 0.36
BATCH SIZE 0.00
RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 7 CARBON DIOXIDE
STATE GAS
DENSITY 0.12 LBS/CU. FT.
ATTRIBUTES STABLE DANGEROUS
ELEMENTS PRESENT .. C,O
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1104.50
DAILY RATE 3.03
BATCH SIZE 0.00
RECLAMATION ACTION .. REDUCE

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS
GROUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 2 THE LIFE CYCLE OF RODENTS
*** WASTE SOURCE NO. 1 PREGNANCY AND GROWTH IN THE MAMMALIAN OR
GANISM

***** WASTE ITEM NO. 8 PACKAGING MATERIAL
STATE SOLID
DENSITY 0.08 LBS/CU. FT.
ATTRIBUTES PLASTIC,PAPER CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYETHELENE,CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 14.60
DAILY RATE 0.04
BATCH SIZE 0.00
RECLAMATION ACTION .. REUSE AS IS

***** WASTE ITEM NO. 9 URINE,FECES,PAPER,FECAL COLLECTION BAG
STATE SOLID,LIQUID
DENSITY 134.78 LBS/CU. FT.
ATTRIBUTES ORGANIC,PAPER,PLASTIC CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION ORGANIC,CELLULOSE,TEFLON
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1445.40
DAILY RATE 3.96
BATCH SIZE 0.00
RECLAMATION ACTION .. WMS

S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS
 GROUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 2 THE LIFE CYCLE OF PODENTS

**** WASTE SOURCE NO. 2 PHYSIOLOGY AND BEHAVIOR THROUGH ONE GENE
 RATION

DOCUMENT NO. 3.4.3.2.2

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
 BITAL MISSIONS REVISION DATED MAY, 1969,
 NASA OMSF.

REFERENCE NO. 2 .. GROWTH INCLUDING REPRODUCTION AND MORPHO
 LOGICAL DEVEL., BIO. HANDBOOKS 1962, ED.
 BY ALTMAN, P.L., AND DITMER, D.S., FED.
 OF AMERICAN SOCIETIES FOR EXPERIMENTAL

REFERENCE NO. 3 .. STANDARD VALUES IN NUTRITION AND METABOL
 ISM 1953, ALBRITTON E.C. EDITOR, WRIGHT
 AIR DEVELOPMENT CENTER, WRIGHT-PATTERSON
 AIR FORCE BASE, OHIO.

REFERENCE NO. 4 .. COMPARATIVE ANIMAL PHYSIOLOGY 1961 AND E
 DITION, PROSSER, C.L. AND BROWN, F.A. JR., W
 .B. SAUNDERS & CO.

REFERENCE NO. 5 .. ANIMALS FOR RESEARCH-PRINCIPLES OF BREED
 ING AND MANAGEMENT 1963, LANE-PETTER W.,
 EDITOR ACADEMIC PRESS.

***** WASTE ITEM NO. 1 CAGES

STATE SOLID

DENSITY 100.00 LBS/CU. FT.

ATTRIBUTES METAL CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION STEEL

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

3295.00

DAILY RATE

9.00

BATCH SIZE

0.00

RECLAMATION ACTION .. WASH

S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS
GROUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 2 THE LIFE CYCLE OF RODENTS
*** WASTE SOURCE NO. 2 PHYSIOLOGY AND BEHAVIOR THROUGH ONE CENE
RATION

***** WASTE ITEM NO. 2 CARBON DIOXIDE
STATE GAS
DENSITY 0.12 LBS/CU. FT.
ATTRIBUTES STABLE, DANGEROUS
ELEMENTS PRESENT .. C, C
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 134.42
DAILY RATE 0.37
BATCH SIZE 0.12
RECLAMATION ACTION .. REDUCE

***** WASTE ITEM NO. 3 FOOD DISH
STATE WASH
DENSITY 8.64 LBS/CU. FT.
ATTRIBUTES PLASTIC CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 65.70
DAILY RATE 0.18
BATCH SIZE 0.00
RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 4 WATER BOTTLE
STATE SOLID
DENSITY 46.66 LBS/CU. FT.
ATTRIBUTES GLASS CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION BOROSILICATES
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1095.00
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. WASH

S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS
GROUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 2 THE LIFE CYCLE OF RODENTS
**** WASTE SOURCE NO. 2 PHYSIOLOGY AND BEHAVIOR THROUGH ONE GENERATION

***** WASTE ITEM NO. 5 WIPES, BACTERICIDE, HAIR
STATE SOLID
DENSITY 6.07 LBS/CU. FT.
ATTRIBUTES ORGANIC BACTERICIDE, CELLULOSE
ELEMENTS PRESENT ..
COMPOSITION ORGANIC, BACTERICIDE, CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 153.30
DAILY RATE 0.42
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 6 PACKAGING
STATE SOLID
DENSITY 0.08 LBS/CU. FT.
ATTRIBUTES PLASTIC, PAPER CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYETHYLENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 7.30
DAILY RATE 0.02
BATCH SIZE 0.00
RECLAMATION ACTION .. REUSE AS IS

***** WASTE ITEM NO. 7 FECES, URINE, PAPER TOWEL, FECAL COLLECT BAG
STATE SOLID, LIQUID
DENSITY 134.78 LBS/CU. FT.
ATTRIBUTES ORGANIC, PAPER, PLASTIC CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION ORGANIC, CELLULOSE, TEFLON
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 730.00
DAILY RATE 2.00
BATCH SIZE 0.00
RECLAMATION ACTION .. WMS

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS
GROUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 2 THE LIFE CYCLE OF RODENTS

*** WASTE SOURCE NO. 3 TURNOVER OF MINERALIZED TISSUE

DOCUMENT NO. 3.4.3.2.3

REFERENCE NO. 1 .. EXPERIMENTAL PROGRAM FOR EXTENDED EARTH
ORBITAL MISSION REVISION DATED MAY 1969,
NASA OFFICE OF MANNED SPACE FLIGHT.

REFERENCE NO. 2 .. STANDARD VALUES IN NUTRITION AND METABOL
ISM, 1953, ALBRITTON, E.C., EDITOR, WRIGHT A
IR DEVELOPMENT CENTER, WRIGHT PATTERSON A
IR FORCE BASE, OHIO.

REFERENCE NO. 3 .. ANIMALS FOR RESEARCH-PRINCIPLES OF BREED
ING AND MANAGEMENT, 1963, LANE PETTER, W.
, EDITOR, ACADEMIC PRESS.

REFERENCE NO. 4 .. GROWTH, INCLUDING REPRODUCTION AND DEVELO
PMENT, BIOLOGICAL HANDBOOKS, 1962, EDITED B
Y ALTMAN, P.L., AND DITTMER, C.S., FED. OF
AMERICAN SOCIETIES FOR EXPERIMENTAL BIOL

REFERENCE NO. 5 .. COMPARATIVE ANIMAL PHYSIOLOGY, 1961, SECON
D EDITION, PROSSER, C.L., AND BROWN, F.A., J
R., W.B. SAUNDERS & CO.

***** WASTE ITEM NO. 1 CAGES

STATE SOLID

DENSITY 100.00 LBS/CU. FT.

ATTRIBUTES METAL CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION STEEL

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

2190.00

DAILY RATE

6.00

BATCH SIZE

0.00

RECLAMATION ACTION .. WASH

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS
GROUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 2 THE LIFE CYCLE OF RODENTS

*** WASTE SOURCE NO. 3 TURNOVER OF MINERALIZED TISSUE

***** WASTE ITEM NO. 2 WATER BOTTLE
STATE SOLID
DENSITY 46.66 LBS/CU. FT.
ATTRIBUTES GLASS CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION BOROSILICATES
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 365.00
DAILY RATE 1.00
BATCH SIZE 0.00
RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 3 FOOD DISH
STATE SOLID
DENSITY 8.64 LBS/CU. FT.
ATTRIBUTES PLASTIC CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 21.90
DAILY RATE 0.06
BATCH SIZE 0.00
RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 4 CARBON DIOXIDE
STATE GAS
DENSITY 0.12 LBS/CU. FT.
ATTRIBUTES STABLE, DANGEROUS
ELEMENTS PRESENT .. C, O
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 26.86
DAILY RATE 0.07
BATCH SIZE 0.00
RECLAMATION ACTION .. REDUCE

S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS
GROUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 2 THE LIFE CYCLE OF RODENTS
*** WASTE SOURCE NO. 3 TURNOVER OF MINERALIZED TISSUE

***** WASTE ITEM NO. 5 WIPES, BACTERICIDE, HAIR
STATE SOLID
DENSITY 6.07 LBS/CU. FT.
ATTRIBUTES PAPER, BACTERICIDE, HAIR CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE, BACTERICIDE, ORGANIC
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 51.10
DAILY RATE 0.14
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 6 FECES, URINE, PAPER TOWEL, FECAL COLLECT BAG
STATE SOLID, LIQUID
DENSITY 134.78 LBS/CU. FT.
ATTRIBUTES PAPER, ORGANIC, PLASTIC CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE, ORGANIC, TEFLON
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 230.90
DAILY RATE 0.66
BATCH SIZE 0.00
RECLAMATION ACTION .. WMS

***** WASTE ITEM NO. 7 PACKAGING MATERIAL
STATE SOLID
DENSITY 0.08 LBS/CU. FT.
ATTRIBUTES PAPER, PLASTIC CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE, POLYETHYLENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 3.65
DAILY RATE 0.01
BATCH SIZE 0.00
RECLAMATION ACTION .. REUSE AS IS

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS
GROUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 2 THE LIFE CYCLE OF RODENTS
*** WASTE SOURCE NO. 3 TURNOVER OF MINERALIZED TISSUE

***** WASTE ITEM NO. 8 SYRINGE

STATE SOLID

DENSITY 35.60 LBS/CU. FT.

ATTRIBUTES PLASTIC, RADIOACTIVE

ELEMENTS PRESENT ..

COMPOSITION POLYSTYRENE

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 0.65

DAILY RATE 0.00

BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS
GROUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 2 THE LIFE CYCLE OF RODENTS

**** WASTE SOURCE NO. 4 METABOLIC ADAPTATION OF THE MAMMALIAN OR
GANISM
DOCUMENT NO. 3.4.3.2.4

REFERENCE NO. 1 .. EXPERIMENTAL PROGRAM FOR EXTENDED EARTH
ORBITAL MISSION, REVISION DATED MAY 1969
, NASA OVSF.

REFERENCE NO. 2 .. STANDARD VALUES IN NUTRITION AND METABOL
ISM, 1953, ALBRITTON, E.C. EDITOR, WRIGHT A
IR DEVELOPMENT CENTER, WRIGHT PATTERSON
AIR FORCE BASE, OHIO.

REFERENCE NO. 3 .. COMPARATIVE ANIMAL PHYSIOLOGY, 1961 2ND E
DITION, PROSSER C.L. AND BROWN F.A., JR.
, W.B. SAUNDERS CO.

REFERENCE NO. 4 .. ANIMALS FOR RESEARCH-PRINCIPALS OF BREED
ING AND MANAGEMENT, 1963, LANE-PETTER W.
EDITOR, ACADEMIC PRESS.

REFERENCE NO. 5 .. GROWTH INCLUDING REPRODUCTION AND DEVLO
PMENT, BIOLOGICAL HANDBOOKS 1962, EDITED
BY ALTMAN P.L. AND CITTVER D.S., FED. OF
AMERICAN SOCIETIES FOR EXPERIMENTAL BIO

*** WASTE ITEM NO. 1 CAGES

STATE SOLID

DENSITY 100.00 LBS/CU. FT.

ATTRIBUTES METAL CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION STEEL

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

3285.00

DAILY RATE

9.00

BATCH SIZE

0.00

RECLAMATION ACTION .. WASH

S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS
GROUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 2 THE LIFE CYCLE OF RODENTS
*** WASTE SOURCE NO. 4 METABOLIC ADAPTATION OF THE MAMMALIAN OR
GANISM

**** ** WASTE ITEM NO. 2 FOOD DISH
STATE SOLID
DENSITY 207.36 LBS/CU. FT.
ATTRIBUTES GLASS CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION BOROSILICATES
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 722.70
DAILY RATE 1.98
BATCH SIZE 0.00
RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 3 WATER DISH
STATE SOLID
DENSITY 5.18 LBS/CU. FT.
ATTRIBUTES PLASTIC CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 350.40
DAILY RATE 0.96
BATCH SIZE 0.00
RECLAMATION ACTION .. WASH

*** ** WASTE ITEM NO. 4 WIPES, BACTERICIDE, HAIR
STATE SOLID
DENSITY 16.80 LBS/CU. FT.
ATTRIBUTES ORGANIC, PAPER, BACTERICIDE CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION ORGANIC, CELLULOSE, BACTERICIDE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1095.00
DAILY RATE 3.00
BATCH SIZE 0.00
RECLAMATION ACTION ..

S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS
 GROUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 2 THE LIFE CYCLE OF RODENTS
 *** WASTE SOURCE NO. 4 METABOLIC ADAPTATION OF THE MAMMALIAN OR
 GANISM

***** WASTE ITEM NO. 5 PACKAGING MATERIALS .
 STATE SOLID
 DENSITY C.08 LBS/CU. FT.
 ATTRIBUTES PAPER, PLASTIC CONTAMINATED
 ELEMENTS PRESENT ..
 COMPOSITION CELLULOSE, POLYETHYLENE
 GENERATION DATA ... QUANTITY (LBS)
 EXPT. TOTAL 7.30
 DAILY RATE 0.02
 BATCH SIZE 0.00
 RECLAMATION ACTION .. REUSE AS IS

***** WASTE ITEM NO. 6 CARBON DIOXIDE
 STATE GAS
 DENSITY C.12 LBS/CU. FT.
 ATTRIBUTES STABLE, DANGEROUS
 ELEMENTS PRESENT .. C, C
 COMPOSITION
 GENERATION DATA ... QUANTITY (LBS)
 EXPT. TOTAL 456.25
 DAILY RATE 1.25
 BATCH SIZE 0.00
 RECLAMATION ACTION .. REDUCE

***** WASTE ITEM NO. 7 FECAL COLLECTION BAG, FECES, PAPER TOWEL
 STATE SOLID
 DENSITY 134.78 LBS/CU. FT.
 ATTRIBUTES ORGANIC, PAPER, PLASTIC CONTAMINATED
 ELEMENTS PRESENT ..
 COMPOSITION ORGANIC, CELLULOSE, TEFLON
 GENERATION DATA ... QUANTITY (LBS)
 EXPT. TOTAL 408.80
 DAILY RATE 1.12
 BATCH SIZE 0.00
 RECLAMATION ACTION .. WMS

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM SMALL VEPTEBRATES EXPERIMENTS
GROUP KFY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 3 IMMUNE RESPONSES OF MAMMALS

ASSOCIATED FPE NUMBER ... M4
S/C AREAS BIO-LABORATORY
ANIMAL HOUSING

*** WASTE SOURCE NO. 1 MOBILE CELLS AND MUCO PROTEINS

DOCUMENT NO. 3.4.3.3.1

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSION REVISION DATED MAY 1969, N
ASA OFFICE OF MANNED SPACE FLIGHT.

REFERENCE NO. 2 .. STANDARD VALUES IN NUTRITION AND METABOL
ISM 1953 ALBRITTON E.C.EDITOR WRIGHT AIR
DEVELOPMENT CENTER, WRIGHT PATTERSON AI
R FORCE BASE.

REFERENCE NO. 3 .. COMPARATIVE ANIMAL PHYSIOLOGY 1961, 2ND
EDITION, PROSSER C.L. AND BROWN F.A. JR.
-W.B. SAUNDERS & CO.

REFERENCE NO. 4 .. ANIMALS FOR RESEARCH-PRINCIPALS OF BREED
ING AND MANAGEMENT 1963, LANE PETTER W.
EDITOR, ACADEMIC PRESS.

***** WASTE ITEM NO. 1 CAGES (4)

STATE SOLID
DENSITY 100.00 LBS/CU. FT.
ATTRIBUTES METAL CONTAMINATED
ELEMENTS PRESENT ..

COMPOSITION STEEL

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 540.00

DAILY RATE 6.00

BATCH SIZE 0.00

RECLAMATION ACTION .. WASH

** MANNED SPACECRAFT WASTE GENERATION DATA ~*

S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS
GROUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 3 IMMUNE RESPONSES OF MAMMALS
*** WASTE SOURCE NO. 1 MOBILE CELLS AND MUCC PROTEINS
'**

***** WASTE ITEM NO. 2 WIPES WITH BACTERICIDE, HAIR
STATE SOLID
DENSITY 6.07 LBS/CU. FT.
ATTRIBUTES ORGANIC, PAPER, BACTERICIDE CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION ORGANIC, CELLULOSE, BACTERICIDE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 12.60
DAILY RATE 0.14
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 3 URINE, FECES, PAPER TOWEL, FECAL COLLECT BAG
STATE SOLID, LIQUID
DENSITY 134.78 LBS/CU. FT.
ATTRIBUTES ORGANIC, PAPER, PLASTER CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION ORGANIC, CELLULOSE, TEFLON
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 36.90
DAILY RATE 0.41
BATCH SIZE 0.00
RECLAMATION ACTION .. WMS

***** WASTE ITEM NO. 4 FOOD DISH
STATE SOLID
DENSITY 8.64 LBS/CU. FT.
ATTRIBUTES PLASTIC CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 5.40
DAILY RATE 0.06
BATCH SIZE 0.00
RECLAMATION ACTION .. WASH

S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS
GROUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 3 IMMUNE RESPONSES OF MAMMALS
** WASTE SOURCE NO. 1 MOBILE CELLS AND MUCO PROTEINS

***** WASTE ITEM NO. 5 WATER BOTTLE
STATE SOLID
DENSITY 46.66 LBS/CU. FT.
ATTRIBUTES GLASS CONTAMINATED
ELEMENTS PRESENT .. C,C
COMPOSITION BORSILICATES
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 90.00
DAILY RATE 1.00
BATCH SIZE 0.00
RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 6 SYRINGE
STATE SOLID
DENSITY 35.60 LBS/CU. FT.
ATTRIBUTES PLASTIC CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.94
DAILY RATE 0.00
BATCH SIZE 0.08
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 7 GAUZE PADS,ALCOHOL
STATE SOLID
DENSITY 0.17 LBS/CU. FT.
ATTRIBUTES GAUZE,ALCOHOL CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE,ALCOHOL
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.14
DAILY RATE 0.00
BATCH SIZE 0.01
RECLAMATION ACTION .. N/R

S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS
GROUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 3 IMMUNE RESPONSES OF MAMMALS

*** WASTE SOURCE NO. 1 MOBILE CELLS AND MUCC PROTEINS

***** WASTE ITEM NO. 8 PACKAGING MATERIAL

STATE SOLID

DENSITY 0.08 LBS/CU. FT.

ATTRIBUTES PAPER, PLASTIC CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE, POLYETHELENE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 2.70

DAILY RATE 0.03

BATCH SIZE 0.00

RECLAMATION ACTION .. REUSE AS IS

✓ ***** WASTE ITEM NO. 9 WATER BOTTLE

STATE SOLID

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES GLASS, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION BOROSILICATES

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 90.00

DAILY RATE 1.00

BATCH SIZE 0.00

RECLAMATION ACTION .. WASH

S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS
GROUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 3 IMMUNE RESPONSES OF MAMMALS

*** WASTE SOURCE NO. 2 PROD. AND PERSISTENCE OF CIRCULATING ANTI
-BODIES
DOCUMENT NO. 3.4.3.3.2

REFERENCE NO. 1 .. GROWTH INCLUDING REPRODUCTION AND MORPHO
LOGICAL DEVELOPMENT, BIO. HANDBOOKS, 1962, EDIT
ED BY ALTMAN, P. L., AND DITMER, D. S., FED. O
F AMERICAN SOCIETIES FOR EXPERIMENTAL BI

REFERENCE NO. 2 .. STANDARD VALUES IN NUTRITION AND METABOL
ISM, 1953, ALBRITTON, E. C., EDITOR, WRIGHT A
IR DEVELOPMENT CENTER, WRIGHT-PATTERSON A
IR FORCE BASE, OHIO.

REFERENCE NO. 3 .. COMPARATIVE ANIMAL PHYSIOLOGY, 1961, PRO
SSER, C. L., AND BROWN, F. A., JR., 2ND EDIT
ION, W. B. SAUNDERS CO.

REFERENCE NO. 4 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS REVISION DATED MAY 1969 N
ASA OFFICE OF MANNED SPACE FLIGHT.

***** WASTE ITEM NO. 1 CAGE RACKS
STATE SOLID
DENSITY 100.00 LBS/CU. FT.
ATTRIBUTES METAL CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION STEEL
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 810.00
DAILY RATE 0.09
BATCH SIZE 0.00
RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 2 FOOD DISH
STATE SOLID
DENSITY 8.64 LBS/CU. FT.
ATTRIBUTES PLASTIC CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 8.10
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. WASH

S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS
GROUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 3 IMMUNE RESPONSES OF MAMMALS
*** WASTE SOURCE NO. 2 PROCD.AND PERSISTANCE OF CIRCULATING ANTI
-BCDIES

*** WASTE ITEM NO. 3 URINE,COLLECTION BAG
STATE SOLID,LIQUID
DENSITY 134.78 LBS/CU. FT.
ATTRIBUTES ORGANIC,PLASTIC CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION ORGANIC,TEFLON
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 70.20
DAILY RATE 0.78
BATCH SIZE 0.00
RECLAMATION ACTION .. WMS

***** WASTE ITEM NO. 4 FECES,COLLECTION BAG
STATE SOLID
DENSITY 134.78 LBS/CU. FT.
ATTRIBUTES ORGANIC,PLASTIC CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION ORGANIC,TEFLON
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 48.60
DAILY RATE 0.51
BATCH SIZE 0.00
RECLAMATION ACTION .. WMS

***** WASTE ITEM NO. 5 SYRINGES
STATE SOLID
DENSITY 35.60 LBS/CU. FT.
ATTRIBUTES PLASTIC CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.62
DAILY RATE 0.00
BATCH SIZE 0.31
RECLAMATION ACTION .. N/R

S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS
GROUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 3 IMMUNE RESPONSES OF MAMMALS
*** WASTE SOURCE NO. 2 PROD. AND PERSISTENCE OF CIRCULATING ANTI
-BODIES

***** WASTE ITEM NO. 6 GAUZE PADS, ALCOHOL
STATE SOLID
DENSITY 0.17 LBS/CU. FT.
ATTRIBUTES GAUZE, ALCOHOL CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE, ALCOHOL
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.10
DAILY RATE 0.00
BATCH SIZE 0.05
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 7 WIPES, BACTERICIDE, HAIR
STATE SOLID
DENSITY 6.07 LBS/CU. FT.
ATTRIBUTES GAUZE, BACTERICIDE, ORGANIC CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION ORGANIC, CELLULOSE, BACTERICIDE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 16.20
DAILY RATE 0.18
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 8 PAPER TOWEL, ANIMAL HAIR
STATE SOLID
DENSITY 6.07 LBS/CU. FT.
ATTRIBUTES PAPER CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE, ORGANIC
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 5140.00
DAILY RATE 0.06
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

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RUN NO. ** 2 **

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S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS
GROUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 3 IMMUNE RESPONSES OF MAMMALS
*** WASTE SOURCE NO. 2 PRCD. AND PERSISTANCE OF CIRCULATING ANTI
-BCDIES

**** ** WASTE ITEM NO. 9 WATER BOTTLE
STATE SOLID
DENSITY 46.66 LBS/CU. FT.
ATTRIBUTES GLASS CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION BOROSILICATES
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 135.00
DAILY RATE 1.50
BATCH SIZE 0.00
RECLAMATION ACTION .. STERILIZE

**** ** WASTE ITEM NO. 10 CARBON DIOXIDE
STATE GAS
DENSITY 0.12 LBS/CU. FT.
ATTRIBUTES STABLE, DANGEROUS
ELEMENTS PRESENT .. C, O
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 18.00
DAILY RATE 0.20
BATCH SIZE 0.00
RECLAMATION ACTION .. REDUCE

**** ** WASTE ITEM NO. 11 PACKAGING MATERIAL
STATE SOLID
DENSITY 0.08 LBS/CU. FT.
ATTRIBUTES PAPER, PLASTIC CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE, POLYETHYLENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 2.70
DAILY RATE 0.03
BATCH SIZE 0.00
RECLAMATION ACTION .. REUSE AS IS

S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS
GROUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 4 EMBRYOGENESIS AND DEVELOPMENT IN
AMPHIBIA

ASSOCIATED FPE NUMBER ...

S/C AREAS BIO-LABORATORY

ANIMAL HOUSING

*** WASTE SOURCE NO. 1 EMBRYOGENESIS AND DEVELOPMENT IN AMPHIBI
A

DOCUMENT NO. 3.4.3.4.1*

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS REVISION DATED MAY 1969,
NASA OFFICE OF MANNED SPACE FLIGHT

REFERENCE NO. 2 .. THE EFFECT OF WEIGHTLESSNESS ON THE DIVI
DING EGG OF RANA PIPEENS, YOUNG R.S. AND
TREMA J.W.-JUNE 1968 BIOSCIENCE VOL. 18
NO.6

***** WASTE ITEM NO. 1 MACERATED TESTES BOTTLE

STATE SOLID

DENSITY 86.40 LBS/CU. FT.

ATTRIBUTES ORGANIC, GLASS CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION ORGANIC, BOROSILICATES, WATER

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.02

DAILY RATE 0.00

BATCH SIZE 0.02

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 FIXATIVE SOLUTION BOTTLE

STATE SOLID

DENSITY 52.87 LBS/CU. FT.

ATTRIBUTES GLASS CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION BOROSILICATES

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.04

DAILY RATE 0.00

BATCH SIZE 0.04

RECLAMATION ACTION .. N/R

S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS
GROUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 4 EMBRYOGENESIS AND DEVELOPMENT IN
AMPHIBIA

**** WASTE SOURCE NO. 1 EMBRYOGENESIS AND DEVELOPMENT IN AMPHIBI
A

*** WASTE ITEM NO. 3 SYRINGE

STATE SOLID

DENSITY 35.60 LBS/CU. FT.

ATTRIBUTES PLASTIC CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYSTYRENE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.01

DAILY RATE 0.00

BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

*** WASTE ITEM NO. 4 FORCEPS

STATE SOLID

DENSITY 490.00 LBS/CU. FT.

ATTRIBUTES METAL CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION STEEL

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.35

DAILY RATE 0.07

BATCH SIZE 0.00

RECLAMATION ACTION .. WASH

*** WASTE ITEM NO. 5 PACKAGING MATERIAL

STATE SOLID

DENSITY 0.08 LBS/CU. FT.

ATTRIBUTES PAPER, PLASTIC CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE, POLYETHELENE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.05

DAILY RATE 0.01

BATCH SIZE 0.00

RECLAMATION ACTION .. REUSE AS IS

11/30/70

RUN NO. ** 2 **

PAGE 302

S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS

GROUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 5 GROWTH AND METABOLISM IN REPTILE
S

ASSOCIATED FPE NUMBER ...

S/C AREAS BIO-LABORATORY
ANIMAL HOUSING

**** WASTE SOURCE NO. 1 GROWTH AND METABOLISM IN REPTILES

DOCUMENT NO. 3.4.3.5.1*

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, REVISION DATED MAY 1969,
NASA OFFICE OF MANNED SPACE FLIGHT

REFERENCE NO. 2 .. STANDARD VALUES IN NUTRITION AND METABOL
ISM, 1953, ALBRITTON, E.C. EDITOR, WRIGHT
AIR DEVELOPMENT CENTER, WRIGHT-PATTERSON
AIR FORCE BASE, OHIO.

REFERENCE NO. 3 .. COMPARATIVE ANIMAL PHYSIOLOGY 1961, PRJS
SER C.L. AND BROWN F.A. JR., 2ND EDITION
W.B. SAUNDERS CO.

***** WASTE ITEM NO. 1 FECAL COLLECTION BAG, WATER, FECES, URINE

STATE SOLID, LIQUID

DENSITY 134.78 LBS/CU. FT.

ATTRIBUTES ORGANIC, PLASTIC CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION ORGANIC, TEFLON

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 18.14

DAILY RATE 0.00

BATCH SIZE 6.14

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 CONTAINERS

STATE SOLID

DENSITY 10.45 LBS/CU. FT.

ATTRIBUTES GLASS, METAL CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION BOROSILICATES

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 72.00

DAILY RATE 0.00

BATCH SIZE 24.00

RECLAMATION ACTION .. WASH

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

PAGE 303

S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS
GROUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 5GROWTH AND METABOLISM IN REPTILE
S

*** WASTE SOURCE NO. 1 GROWTH AND METABOLISM IN REPTILES

*** ** *****

*** ** WASTE ITEM NO. 3 CARBON DIOXIDE

STATE GAS

DENSITY 0.12 LBS/CU. FT.

ATTRIBUTES STABLE,DANGEROUS

ELEMENTS PRESENT .. C,O

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 14.40

DAILY RATE 0.16

BATCH SIZE 0.00

RECLAMATION ACTION .. REDUCE

*** ** WASTE ITEM NO. 4 SAND

STATE SOLID

DENSITY 120.00 LBS/CU. FT.

ATTRIBUTES SAND CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION WASH

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 18.00

DAILY RATE 0.00

BATCH SIZE 6.00

RECLAMATION ACTION .. WASH

*** ** WASTE ITEM NO. 5 AQUATIC PLANTS

STATE SOLID

DENSITY 15.00 LBS/CU. FT.

ATTRIBUTES ORGANIC CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION ORGANIC

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL .62

DAILY RATE .00

BATCH SIZE .54

RECLAMATION ACTION .. WASH

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS
GROUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 5GROWTH AND METABOLISM IN REPTILE
S

*** WASTE SOURCE NO. 1 GROWTH AND METABOLISM IN REPTILES

***** WASTE ITEM NO. 6 PACKAGING MATERIAL

STATE SOLID

DENSITY 0.08 LBS/CU. FT.

ATTRIBUTES PAPER CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

0.06

DAILY RATE

0.00

BATCH SIZE

0.02

DECLARATION ACTION .. REUSE AS IS

S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS
GROUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 6 INFLUENCE OF GRAVITY ON BEHAVIOR
IN MAMMALS

ASSOCIATED FPE NUMBER ...

S/C AREAS BIG-LABORATORY
ANIMAL HOUSING

**** WASTE SOURCE NO. 1 INFLUENCE OF GRAVITY ON BEHAVIOR IN MAMMALS

DOCUMENT NO. 3.4.3.6.1

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH ORBITAL MISSION, REVISION DATED MAY 1969, NASA OFFICE OF MANNED SPACE FLIGHT.

REFERENCE NO. 2 .. STANDARD VALUES IN NUTRITION AND METABOLISM 1953, ALBRITTON E.C. EDITOR, WRIGHT AIR DEVELOPMENT CENTER, WRIGHT-PATTERSON AIR FORCE BASE, OHIO.

REFERENCE NO. 3 .. COMPARATIVE ANIMAL PHYSIOLOGY 1961, 2ND EDITION, PROSSER C.L. AND BROWN, F.A. JR., W.B. SAUNDERS & CO.

REFERENCE NO. 4 .. ANIMALS FOR RESEARCH-PRINCIPALS OF BREEDING AND MANAGEMENT 1963, LANE-PETTER, W. EDITOR, ACADEMIC PRESS.

***** WASTE ITEM NO. 1 CAGES {4}

STATE SOLID

DENSITY 100.00 LBS/CU. FT.

ATTRIBUTES METAL CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION STEEL

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

316.00

DAILY RATE

0.41

BATCH SIZE

0.00

RECLAMATION ACTION .. WMS

11/30/70

RUN NO. ** 2 **

PAGE 306

S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS
GROUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 6 INFLUENCE OF GRAVITY ON BEHAVIOR
IN MAMMALS

*** WASTE SOURCE NO. 1 INFLUENCE OF GRAVITY ON BEHAVIOR IN MAMMALS

*** WASTE ITEM NO. 2 WIPES WITH BACTERICIDE, HAIR
STATE SOLID
DENSITY 6.07 LBS/CU. FT.
ATTRIBUTES BACTERICIDE, PAPER, ORGANIC CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION BACTERICIDE, CELLULOSE, ORGANIC
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 7.84
DAILY RATE 0.14
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 3 PAPER TOWEL, FECES, URINE, FECAL COLLECTBAG
STATE SOLID, LIQUID
DENSITY 134.78 LBS/CU. FT.
ATTRIBUTES ORGANIC, PAPER, PLASTIC CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION ORGANIC, CELLULOSE, TEFLON
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 22.96
DAILY RATE 0.00
BATCH SIZE 0.00
- RECLAMATION ACTION ..

***** WASTE ITEM NO. 4 FOOD DISH
STATE SOLID
DENSITY 8.64 LBS/CU. FT.
ATTRIBUTES PLASTIC CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 3.36
DAILY RATE 0.06
BATCH SIZE 0.00
RECLAMATION ACTION .. WASH

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

PAGE 307

S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS
GROUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 6 INFLUENCE OF GRAVITY ON BEHAVIOR
IN MAMMALS

*** WASTE SOURCE NO. 1 INFLUENCE OF GRAVITY ON BEHAVIOR IN MAMM
ALS

*** WASTE ITEM NO. 5 WATER BOTTLE
STATE SOLID
DENSITY 46.66 LBS/CU. FT.
ATTRIBUTES GLASS CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION BORSILICATES
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 56.00
DAILY RATE 1.00
BATCH SIZE 0.00
RECLAMATION ACTION .. WASH

*** WASTE ITEM NO. 6 CARBON DIOXIDE
STATE GAS
DENSITY 0.12 LBS/CU. FT.
ATTRIBUTES STABLE, DANGEROUS
ELEMENTS PRESENT .. C, O
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 14.94
DAILY RATE 0.26
BATCH SIZE 0.00
RECLAMATION ACTION .. REDUCE

*** WASTE ITEM NO. 7 PACKAGING MATERIAL
STATE SOLID
DENSITY 0.08 LBS/CU. FT.
ATTRIBUTES PAPER, PLASTIC CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE, POLYETHELENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.12
DAILY RATE 0.02
BATCH SIZE 0.00
RECLAMATION ACTION .. REUSE AS IS

11/30/70

RUN NO. ** 2 **

PAGE 308

S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS

SCUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 7 INFLUENCE ON BICRYTHMS OF ANIMAL
S

ASSOCIATED FPE NUMBER ... NCE

S/C AREAS BIC-LABORATORY

ANIMAL HOUSING

*** WASTE SOURCE NO. 1 INFLUENCE ON BIORHYTHMS OF ANIMALS

DOCUMENT NO. 3.4.3.7.1

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS REVISION DATED MAY 1969,
NASA OFFICE OF MANNED SPACE FLIGHT.

REFERENCE NO. 2 .. STANDARD VALUES IN NUTRITION AND METABOL
ISM 1953-ALDRITTON E.C., EDITOR, WRIGHT
AIR DEVELOPMENT CENTER, WRIGHT PATTERSON
AIR FORCE BASE, OHIO.

REFERENCE NO. 3 .. ANIMALS FOR RESEARCH - PRINCIPALS OF BRE
EDING AND MANAGEMENT - 1963 LANE - PETER
R W., EDITOR, ACADEMIC PRESS.

REFERENCE NO. 4 .. COMPARATIVE ANIMAL PHYSIOLOGY 1961 2ND E
DITION-POCSESSER, C.L. AND BROWN, F.A. JR.
- W.B. SAUNDERS CO.

***** WASTE ITEM NO. 1 CAGES (4)

STATE SOLID

DENSITY 100.00 LBS/CU. FT.

ATTRIBUTES METAL CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION STEEL

GENERATION DATA ...

EXPT. TOTAL

QUANTITY (LBS)

540.00

DAILY RATE

6.00

BATCH SIZE

0.00

RECLAMATION ACTION .. WASH

*1 MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

PAGE 309

S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS
GROUP KFY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 7 INFLUENCE ON BIORYTHMS OF ANIMAL
S

**** WASTE SOURCE NO. 1 INFLUENCE ON BIORYTHMS OF ANIMALS

***** WASTE ITEM NO. 2 CARBON DIOXIDE

STATE GAS

DENSITY 0.12 LBS/CU. FT.

ATTRIBUTES STABLE, DANGEROUS

ELEMENTS PRESENT .. C, C

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 14.40

DAILY RATE 0.16

BATCH SIZE 0.00

RECLAMATION ACTION .. REDUCE

***** WASTE ITEM NO. 3 FECES, PAPER TOWEL, FECAL COLLECTION BAG

STATE SOLID

DENSITY 134.78 LBS/CU. FT.

ATTRIBUTES ORGANIC, PAPER, PLASTIC

ELEMENTS PRESENT ..

COMPOSITION ORGANIC, CELLULOSE, TEFLON

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 11.70

DAILY RATE 0.13

BATCH SIZE 0.00

RECLAMATION ACTION .. WMS

***** WASTE ITEM NO. 4 FOOD DISH

STATE SOLID

DENSITY 8.64 LBS/CU. FT.

ATTRIBUTES PLASTIC CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYSTYRENE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 5.40

DAILY RATE 0.06

BATCH SIZE 0.00

RECLAMATION ACTION .. WASH

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS
GROUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 7INFLUENCE ON BIORHYTHMS OF ANIMAL
S

*** WASTE SOURCE NO. 1 INFLUENCE ON BIORHYTHMS OF ANIMALS

***** WASTE ITEM NO. 5 WATER BOTTLE
STATE SOLID
DENSITY 46.66 LBS/CU. FT.
ATTRIBUTES GLASS CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION BOROSILICATES
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 90.00
DAILY RATE 1.00
BATCH SIZE 0.00
RECLAMATION ACTION .. WASH

/ ***** WASTE ITEM NO. 6 WIPES,BACTERICIDE,HAIR
STATE SOLID
DENSITY 6.07 LBS/CU. FT.
ATTRIBUTES PAPER,BACTERICIDE,HAIR
ELEMENTS PRESENT ..
COMPOSITION ORGANIC,CELLULOSE,BACTERICIDE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 18.90
DAILY RATE 0.21
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 7 LIGHT BULB
STATE SOLID
DENSITY 13.82 LBS/CU. FT.
ATTRIBUTES GLASS FAILURE
ELEMENTS PRESENT ..
COMPOSITION BOROSILICATES
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.06
DAILY RATE 0.00
BATCH SIZE 0.03
RECLAMATION ACTION .. N/R

S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS
GROUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 7INFLUENCE ON BIORHYTHMS OF ANIMAL
S

**** WASTE SOURCE NO. 1 INFLUENCE ON BIORHYTHMS OF ANIMALS

**** ** WASTE ITEM NO. 8 THERMISTER PROBE

STATE SOLID

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES WIRE CONTAMINATED

ELEMENTS PRESENT .. CU

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.08

DAILY RATE 0.01

BATCH SIZE 0.00

RECLAMATION ACTION .. WIPE WITH BACTER. WIPES

***** WASTE ITEM NO. 9 ADHESIVE TAPE

STATE SOLID

DENSITY 32.83 LBS/CU. FT.

ATTRIBUTES ADHESIVE, PAPER CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION ADHESIVE, CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.36

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 10 PACKAGING MATERIAL.

STATE SOLID

DENSITY 0.08 LBS/CU. FT.

ATTRIBUTES PAPER, PLASTIC CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE, POLYETHYLENE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.80

DAILY RATE 0.02

BATCH SIZE 0.00

RECLAMATION ACTION .. REUSE AS IS

S/C SUBSYSTEM SMALL VERIEBRATES EXPERIMENTS
GROUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 8 THE ROLE OF GRAVITY IN HIBERNATI
ON

ASSOCIATED FPE NUMBER ...

S/C AREAS BIC-LABORATORY
ANIMAL HOUSING

*** WASTE SOURCE NO. 1 THE ROLE OF GRAVITY IN HIBERNATION

DOCUMENT NO.

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS REVISION DATED MAY 1969,
NASA OFFICE OF MANNED SPACE FLIGHT.

REFERENCE NO. 2 .. GROWTH INCLUDING REPRODUCTION AND MORPHO
LOGICAL DEVEL., BIO.HANDBOOKS, 1962, EDITE
D BY ALTMAN, P.L., AND DITTMER, D.S., FED.O
F AMERICAN SOCIETIES FOR EXPERIMENTAL BI

REFERENCE NO. 3 .. COMPARATIVE ANIMAL PHYSIOLOGY 2ND EDITIO
N 1962-PROSSER, C.L. AND BROW, F.A., JR.-
W.B. SAUNDERS & CO.

REFERENCE NO. 4 .. STANDARD VALUES IN NUTRITION AND METABOL
ISM - ALBRITTON, E.C., EDITOR 1953-WRIGH
T AIR DEVELOPMENT CENTER, WRIGHT PATTERS
ON AFB, OHIO.

***** WASTE ITEM NO. 1 CAGES

STATE STERILIZE

DENSITY 100.00 LBS/CU. FT.

ATTRIBUTES METAL CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION STEEL

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 9.00

DAILY RATE 0.00

BATCH SIZE 9.00

RECLAMATION ACTION .. STERILIZE

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS
GROUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 8THE ROLE OF GRAVITY IN HIBERNATI
ON

**** WASTE SOURCE NO. 1 THE ROLE OF GRAVITY IN HIBERNATION

***** WASTE ITEM NO. 2 CARBON DIOXIDE

STATE GAS

DENSITY C.12 LBS/CU. FT.

ATTRIBUTES STABLE,DANGEROUS

ELEMENTS PRESENT .. C,C

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 9.00

DAILY RATE 0.00

BATCH SIZE 9.00

RECLAMATION ACTION .. REDUCE

***** WASTE ITEM NO. 3 PACKAGING MATERIAL

STATE SOLID

DENSITY C.08 LBS/CU. FT.

ATTRIBUTES PAPER CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.25

DAILY RATE 0.00

BATCH SIZE 0.01

RECLAMATION ACTION .. REUSE AS IS

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

PAGE 314

S/C SUBSYSTEM PLANT SPECIMENS (BIO E)

GROUP KEY 3.4.4

BASIC FUNCTION PERFORM MISSION TASKS

FUNCTIONAL REQUIREMENT BIOLOGICAL SCIENCES AND BIOTECHN
OLOGY STUDIES

** EQUIPMENT/EXPERIMENT NO. 1 PLANT RESPONSES FROM 0 TO 16

ASSOCIATED FPE NUMBER ... 5.10

S/C AREAS AGRICULTURAL STUDY AREA

REMOTE DOCKABLE MODULE

*** WASTE SOURCE NO. 1 PLANT RESPONDS FROM 0 TO 16

DOCUMENT NO. 3.4.4.1.1*

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, REVISION NO. 1, SEPTEMBE
R 1, 1969. NASA OMSF.

***** WASTE ITEM NO. 1 FILM

STATE SOLID

DENSITY 83.00 LBS/CU. FT.

ATTRIBUTES PLASTIC

ELEMENTS PRESENT ..

COMPOSITION SILVER EMULSION

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 3.00

DAILY RATE 0.05

BATCH SIZE 0.05

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 FILM WRAPPINGS

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES SHEETS

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 0.30

DAILY RATE 0.00

BATCH SIZE 0.02

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM PLANT SPECIMENS (BIO E)
GROUP KEY 3.4.4

** EQUIPMENT/EXPERIMENT NO. 1 PLANT RESPONSES FROM 0 TO 1G
*** WASTE SOURCE NO. 1 PLANT RESPONSES FROM 0 TO 1G

***** WASTE ITEM NO. 3 VERMICULITE
STATE SOLID
DENSITY 10.00 LBS/CU. FT.
ATTRIBUTES PARTICLES
ELEMENTS PRESENT ..
COMPOSITION SI O2, MGO AL2 O3, FE2 O3 K2O, CAO, H2O
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 10.00
DAILY RATE 0.00
BATCH SIZE 3.30
RECLAMATION ACTION .. STERILIZE

***** WASTE ITEM NO. 4 TISSUE FIXATIVES
STATE LIQUID
DENSITY 70.00 LBS/CU. FT.
ATTRIBUTES CHEMICALS
ELEMENTS PRESENT ..
COMPOSITION CHROMIC ANHYDRIDE, CH3 COOH, FORMALIN
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.50
DAILY RATE 0.00
BATCH SIZE 0.16
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 5 CONTAINERS
STATE SOLID
DENSITY 60.00 LBS/CU. FT.
ATTRIBUTES BOX
ELEMENTS PRESENT ..
COMPOSITION COPOLYVINYL CHLORIDE, ACETATE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 4.00
DAILY RATE 0.00
BATCH SIZE 1.30
RECLAMATION ACTION .. CLEAN

11/30/70

RUN NO. ** 2 **

PAGE 316

S/C SUBSYSTEM PLANT SPECIMENS (BIO E)
GROUP KEY 3.4.4

** EQUIPMENT/EXPERIMENT NO. 1 PLANT RESPONSES FROM 0 TO 16
*** WASTE SOURCE NO. 1 PLANT RESPONSES FROM 0 TO 16

***** WASTE ITEM NO. 6 PLANT MATTER
STATE SOLID
DENSITY 70.00 LBS/CU. FT.
ATTRIBUTES ORGANIC BITS
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE, TRACE MINERALS
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.50
DAILY RATE 0.00
BATCH SIZE 0.16
RECLAMATION ACTION .. MULCH

***** WASTE ITEM NO. 7 SCALPEL
STATE SOLID
DENSITY 488.00 LBS/CU. FT.
ATTRIBUTES FLAT
ELEMENTS PRESENT ..
COMPOSITION STEEL
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.00
DAILY RATE 0.00
BATCH SIZE 0.30
RECLAMATION ACTION .. CLEAN

11/30/70

RUN NO. ** 2 **

PAGE 317

S/C SUBSYSTEM PLANT SPECIMENS (BIO E)

GROUP KEY 3.4.4

** EQUIPMENT/EXPERIMENT NO. 2 PEA SEEDLING GROWTH IN ORBIT

ASSOCIATED FPE NUMBER ... 5.10

S/C AREAS AGRICULTURAL STUDY AREA

REMOTE DOCKABLE MODULE

*** WASTE SOURCE NO. 1 PEA SEEDLING GROWTH IN ORBIT

DOCUMENT NO. 3.4.4.2.1*

REMARKS (1) FOR OPERATIONAL DESCRIPTION SEE DOCUMENT
NO. A- 3.4.4.1.1

***** WASTE ITEM NO. 1 SEED

STATE SOLID

DENSITY 70.00 LBS/CU. FT.

ATTRIBUTES ORGANIC

ELEMENTS PRESENT ..

COMPOSITION CHO

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.10

DAILY RATE 0.00

BATCH SIZE 0.03

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 WATER VAPOR

STATE GAS

DENSITY 0.05 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION WATER

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.40

DAILY RATE 0.01

BATCH SIZE 0.01

RECLAMATION ACTION .. ADSORB

***** WASTE ITEM NO. 3 PLANT MATTER

STATE SOLID

DENSITY 70.00 LBS/CU. FT.

ATTRIBUTES ORGANIC

ELEMENTS PRESENT ..

COMPOSITION (C6 H10 O5)M, CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.50

DAILY RATE 0.00

BATCH SIZE 0.17

RECLAMATION ACTION .. MULCH

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM PLANT SPECIMENS (BIO E)
GROUP KEY 3.4.4

** EQUIPMENT/EXPERIMENT NO. 2PEA SEEDLING GROWTH IN ORBIT
*** WASTE SOURCE NO. 1 PEA SEEDLING GROWTH IN ORBIT

***** WASTE ITEM NO. 4 VERMICULITE
STATE SOLID
DENSITY 10.00 LBS/CU. FT.
ATTRIBUTES MINERAL
ELEMENTS PRESENT ..
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 10.00
DAILY RATE 0.00
BATCH SIZE 10.00
RECLAMATION ACTION .. STERILIZE

***** WASTE ITEM NO. 5 FILM
STATE SOLID
DENSITY 83.00 LBS/CU. FT.
ATTRIBUTES PLASTIC
ELEMENTS PRESENT ..
COMPOSITION ACLAR
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.10
DAILY RATE 0.00
BATCH SIZE 0.03
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 6 FILM WRAPPINGS
STATE SOLID
DENSITY 72.00 LBS/CU. FT.
ATTRIBUTES PAPER
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.30
DAILY RATE 0.00
BATCH SIZE 0.10
RECLAMATION ACTION .. N/R

S/C SUBSYSTEM PLANT SPECIMENS (BIO E)
GROUP KEY 3.4.4

** EQUIPMENT/EXPERIMENT NO. 2PEA SEEDLING GROWTH IN ORBIT

*** WASTE SOURCE NO. 1 PEA SEEDLING GROWTH IN ORBIT

***** WASTE ITEM NO. 7 AUXINS

STATE LIQUID

DENSITY 70.00 LBS/CU. FT.

ATTRIBUTES CHEMICAL

ELEMENTS PRESENT ..

COMPOSITION INDOLE ACETIC ACID

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.10

DAILY RATE 0.00

BATCH SIZE 0.03

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 8 GLASSWARE

STATE SOLID

DENSITY 160.00 LBS/CU. FT.

ATTRIBUTES MINERAL

ELEMENTS PRESENT ..

COMPOSITION SI O2

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 8.00

DAILY RATE 0.00

BATCH SIZE 8.00

RECLAMATION ACTION .. CLEANSE

S/C SUBSYSTEM PLANT SPECIMENS (BIO E)

GROUP KEY 3.4.4

** EQUIPMENT/EXPERIMENT NO. 3 PLANT MORPHOGENESS UNDER WEIGHTLESSNESS

ASSOCIATED FPE NUMBER ... 5.10

S/C AREAS AGRICULTURAL STUDY AREA

REMOTE DOCKABLE MODULE

*** WASTE SOURCE NO. 1 PLANT MORPHOGENESIS UNDER WEIGHTLESSNESS

DOCUMENT NO. 3.4.4.3.1*

REMARKS (1) FOR OPERATIONAL DESCRIPTION SEE DOCUMENT
NO. A- 3.4.4.1.1

***** WASTE ITEM NO. 1 AGAR

STATE SOLID

DENSITY 75.00 LBS/CU. FT.

ATTRIBUTES GEL

ELEMENTS PRESENT ..

COMPOSITION SO4 CA C6 H12 O6

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 4.00

DAILY RATE 0.06

BATCH SIZE 0.06

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 FILM

STATE SOLID

DENSITY 83.00 LBS/CU. FT.

ATTRIBUTES PLASTIC

ELEMENTS PRESENT ..

COMPOSITION AG. EMULSION ACLAR

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.30

DAILY RATE 0.00

BATCH SIZE 0.10

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 3 FILM WRAPPINGS

STATE SOLID

DENSITY 70.00 LBS/CU. FT.

ATTRIBUTES SHEETS

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.20

DAILY RATE 0.00

BATCH SIZE 0.07

RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM PLANT SPECIMENS (BIO E)
GROUP KEY 3.4.4

** EQUIPMENT/EXPERIMENT NO. 3 PLANT MORPHOGENESIS UNDER WEIGHTLESSNESS

**** WASTE SOURCE NO. 1 PLANT MORPHOGENESIS UNDER WEIGHTLESSNESS

***** WASTE ITEM NO. 4 TISSUE FIXATIVES

STATE LIQUID

DENSITY 112.00 LBS/CU. FT.

ATTRIBUTES CHEMICALS

ELEMENTS PRESENT ..

COMPOSITION CHROMIC ANHYDRIDE, CH3 COOH, FORMALIN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.30

DAILY RATE 0.00

BATCH SIZE 0.10

RECLAMATION ACTION .. COLLECT

**** ** WASTE ITEM NO. 5 PLANT MATTER

STATE SOLID

DENSITY 50.00 LBS/CU. FT.

ATTRIBUTES ORGANIC

ELEMENTS PRESENT ..

COMPOSITION CHCN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.50

DAILY RATE 0.01

BATCH SIZE 0.01

RECLAMATION ACTION .. MULCH

***** WASTE ITEM NO. 6 SCALPEL BLADE

STATE SOLID

DENSITY 488.00 LBS/CU. FT.

ATTRIBUTES FLAT

ELEMENTS PRESENT ..

COMPOSITION STEEL

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.00

DAILY RATE 0.00

BATCH SIZE 0.30

RECLAMATION ACTION .. WASH

11/30/70

RUN NO. ** 2 ** ,

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S/C SUBSYSTEM PLANT SPECIMENS (BIO E)
GROUP KEY 3.4.4

** EQUIPMENT/EXPERIMENT NO. 3 PLANT MORPHOGENESS UNDER WEIGHTLESSNESS

*** WASTE SOURCE NO. 1 PLANT MORPHOGENESIS UNDER WEIGHTLESSNESS

*** WASTE ITEM NO. 7 CONTAINER

STATE SOLID

DENSITY 68.60 LBS/CU. FT.

ATTRIBUTES BOX

ELEMENTS PRESENT ..

COMPOSITION PLASTIC, COPOLYVINYL CHLORIDE, ACETATE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 6.00

DAILY RATE 0.00

BATCH SIZE 2.00

RECLAMATION ACTION .. WASH, STERILIZE

***** WASTE ITEM NO. 8 PLANT NUTRIENTS

STATE LIQUID

DENSITY 75.00 LBS/CU. FT.

ATTRIBUTES SOLUTION

ELEMENTS PRESENT ..

COMPOSITION CA NO3 FE2 SO4, (C4 H4 O6)3 MgSO4, KCL, KNO3, KH2 PO4, NAH2 PO4, ETC.

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.20

DAILY RATE 0.00

BATCH SIZE 0.07

RECLAMATION ACTION .. COLLECT

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM PLANT SPECIMENS (BIO E)

GROUP KEY 3.4.4

** EQUIPMENT/EXPERIMENT NO. 4 GAMETO-MORPHOGENESIS OF PTERIS G
AMETOPHYTES

ASSOCIATED FPE NUMBER ... 5.10

S/C AREAS AGRICULTURAL STUDY AREA
REMOTE DOCKABLE MODULE

**** WASTE SOURCE NO. 1 GAMETO-MORPHOGENESIS OF PTERIS GAMETOPHY
TES

DOCUMENT NO. 3.4.4.4.1*

REMARKS (1) FOR OPERATIONAL DESCRIPTION SEE DOCUMENT
NO. A- 3.4.4.1.1

**** ** WASTE ITEM NO. 1 FILM

STATE SOLID

DENSITY 83.00 LBS/CU. FT.

ATTRIBUTES PLASTIC

ELEMENTS PRESENT ..

COMPOSITION SILVER EMULSION ACLAR

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.50

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 FILM WRAPPING

STATE SOLID

DENSITY 70.00 LBS/CU. FT.

ATTRIBUTES SHEETS

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.70

DAILY RATE 0.00

BATCH SIZE 0.10

RECLAMATION ACTION .. N/R

**** ** WASTE ITEM NO. 3 DATA SHEETS

STATE SOLID

DENSITY 70.00 LBS/CU. FT.

ATTRIBUTES SHEETS

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.30

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM PLANT SPECIMENS (BIO E)
GROUP KEY 3.4.4

** EQUIPMENT/EXPERIMENT NO. 4 GAMETO-MORPHOGENESIS OF PTERIS G
AMETOPHYTES

**** WASTE SOURCE NO. 1 GAMETO-MORPHOGENESIS OF PTERIS GAMETOPHY
TES

***** WASTE ITEM NO. 4 TISSUE FIXATIVES

STATE LIQUID

DENSITY 70.00 LBS/CU. FT.

ATTRIBUTES CHEMICAL

ELEMENTS PRESENT ..

COMPOSITION CHROMIC ANHYDRIDE, CH3 COOH, FORMALIN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.50

DAILY RATE 0.00

BATCH SIZE 0.50

RECLAMATION ACTION .. COLLECT

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM PLANT SPECIMENS (BIO E)
GROUP KEY 3.4.4

** EQUIPMENT/EXPERIMENT NO. 5 ROLE OF AUXIN IN THE DEVELOPING
WHEAT SEEDLING
ASSOCIATED FPE NUMBER ... 5.10
S/C AREAS AGRICULTURAL STUDY AREA
REMOTE DOCKABLE MODULE

**** WASTE SOURCE NO. 1 ROLE OF AUXIN IN THE DEVELOPING WHEAT SE
EDLINGS
DOCUMENT NO. 3.4.4.5.1*
REMARKS (1) FOR OPERATIONAL DESCRIPTION SEE DOCUMENT
NO. A- 3.4.4.1.1

***** WASTE ITEM NO. 1 RADIOACTIVE ISOTOPES
STATE LIQUID
DENSITY 63.00 LBS/CU. FT.
ATTRIBUTES CHEMICALS
ELEMENTS PRESENT ..
COMPOSITION C14 - GLUCOSE H3
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.10
DAILY RATE 0.00
BATCH SIZE 0.03
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 FILM
STATE SOLID
DENSITY 83.00 LBS/CU. FT.
ATTRIBUTES PLASTIC
ELEMENTS PRESENT ..
COMPOSITION ACLAR-SILVER EMULSION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.20
DAILY RATE 0.00
BATCH SIZE 0.07
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 3 TISSUE FIXATIVES
STATE LIQUID
DENSITY 70.00 LBS/CU. FT.
ATTRIBUTES CHEMICALS
ELEMENTS PRESENT ..
COMPOSITION CHROMIC ANHYDRIDE, CH3 COOH, FORMALIN
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.10
DAILY RATE 0.00
BATCH SIZE 0.03
RECLAMATION ACTION .. COLLECT

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM PLANT SPECIMENS (BIO E)
GROUP KEY 3.4.4

** EQUIPMENT/EXPERIMENT NO. 5 ROLE OF AUXIN IN THE DEVELOPING
WHEAT SEEDLING

*** WASTE SOURCE NO. 1 ROLE OF AUXIN IN THE DEVELOPING WHEAT SE
EDLINGS

*** WASTE ITEM NO. 4 CONTAINERS
STATE SOLID
DENSITY 6.00 LBS/CU. FT.
ATTRIBUTES PLASTIC
ELEMENTS PRESENT ..
COMPOSITION COPOLYVINYL CHLORIDE, ACETATE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 24.00
DAILY RATE 0.00
BATCH SIZE 8.00
RECLAMATION ACTION .. CLEAN, STERILIZE

***** WASTE ITEM NO. 5 VERMICULITE
STATE SOLID
DENSITY 10.00 LBS/CU. FT.
ATTRIBUTES MINERAL
ELEMENTS PRESENT ..
COMPOSITION SIO2 , MGO AL2 O3, FE2 O3 K2O, CAO, H2O (
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 5.00
DAILY RATE 0.00
BATCH SIZE 1.70
RECLAMATION ACTION .. SIFT, CLEAN

***** WASTE ITEM NO. 6 DATA SHEETS AND FILM PAPER
STATE SOLID
DENSITY 70.00 LBS/CU. FT.
ATTRIBUTES CELLULOSE
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.20
DAILY RATE 0.00
BATCH SIZE 0.07
RECLAMATION ACTION .. N/R

S/C SUBSYSTEM PLANT SPECIMENS (BIO E)
GROUP KEY 3.4.4

** EQUIPMENT/EXPERIMENT NO. 5ROLE OF AUXIN IN THE DEVELOPING
WHEAT SEEDLING

**** WASTE SOURCE NO. 1 ROLE OF AUXIN IN THE DEVELOPING WHEAT SE
EDLINGS

***** WASTE ITEM NO. 7 VARIOUS CHEMICALS IE AUXINS,ENZYMES,ETC.

STATE LIQUID

DENSITY 68.00 LBS/CU. FT.

ATTRIBUTES CHEMICAL

ELEMENTS PRESENT ..

COMPOSITION P,K,CA MG S,B,CU,FE MN, ZN PEROXIDASE,IN
DOLE ACETATE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.30

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 8 PLANT MATTER AND DEBRIS

STATE SOLID

DENSITY 22.00 LBS/CU. FT.

ATTRIBUTES FIBRUS

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.40

DAILY RATE 0.00

BATCH SIZE 0.14

RECLAMATION ACTION .. MULCH

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM PLANT SPECIMENS (BIO E)

GROUP KEY 3.4.4

** EQUIPMENT/EXPERIMENT NO. 6 STRESS IN LAND PLANT EVOLUTION

ASSOCIATED FPE NUMBER ... 5.10

S/C AREAS AGRICULTURAL STUDY AREA
REMOTE DOCKABLE MODULE

**** WASTE SOURCE NO. 1 STRESS IN LAND PLANT EVOLUTION

DOCUMENT NO. 3.4.4.6.1*

REMARKS (1) FOR OPERATIONAL DESCRIPTION SEE DOCUMENT
NO. A- 3.4.4.1.1

***** WASTE ITEM NO. 1 VERMICULATE

STATE SOLID

DENSITY 10.00 LBS/CU. FT.

ATTRIBUTES MINERAL

ELEMENTS PRESENT ..

COMPOSITION SI-O2, MGO AL2 O3, FE2 O3 K2O, CAO, K2O

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 5.00

DAILY RATE 0.00

BATCH SIZE 5.00

RECLAMATION ACTION .. SIFT, CLEAN

***** WASTE ITEM NO. 2 CONTAINERS, TRAYS

STATE SOLID

DENSITY 6.00 LBS/CU. FT.

ATTRIBUTES PLASTIC

ELEMENTS PRESENT ..

COMPOSITION COPOLYVINYL CHLORIDE, ACETATE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 10.00

DAILY RATE 0.00

BATCH SIZE 10.00

RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 3 POLYETHYLENE

STATE SOLID

DENSITY 56.00 LBS/CU. FT.

ATTRIBUTES FILM

ELEMENTS PRESENT ..

COMPOSITION (CH2.CH2)

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 2.00

DAILY RATE 0.00

BATCH SIZE 0.70

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM PLANT SPECIMENS (BID E)
GROUP KEY 3.4.4

** EQUIPMENT/EXPERIMENT NO. 6 STRESS IN LAND PLANT EVOLUTION
*** WASTE SOURCE NO. 1 STRESS IN LAND PLANT EVOLUTION
.*.***

***** WASTE ITEM NO. 4 PLANT MATTER
STATE SOLID
DENSITY 70.00 LBS/CU. FT.
ATTRIBUTES ORGANIC
ELEMENTS PRESENT ..
COMPOSITION CHNO
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.50
DAILY RATE 0.00
BATCH SIZE 0.17
RECLAMATION ACTION .. MULCH

***** WASTE ITEM NO. 5 RADIO ACTIVE ISOTOPES
STATE LIQUID
DENSITY 53.00 LBS/CU. FT.
ATTRIBUTES ALCOHOL
ELEMENTS PRESENT ..
COMPOSITION (CH3O)(OH) C6 H3 CH - CH CH2 OH
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.05
DAILY RATE 0.00
BATCH SIZE 0.02
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 6 FILM
STATE SOLID
DENSITY 83.00 LBS/CU. FT.
ATTRIBUTES PLASTIC
ELEMENTS PRESENT ..
COMPOSITION ACLAR
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.50
DAILY RATE 0.01
BATCH SIZE 0.01
RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM PLANT SPECIMENS (BIO E)
GROUP KEY 3.4.4

** EQUIPMENT/EXPERIMENT NO. 6 STRESS IN LAND PLANT EVOLUTION
**** WASTE SOURCE NO. 1 STRESS IN LAND PLANT EVOLUTION

***** WASTE ITEM NO. 7 TISSUE FIXATIVE
STATE LIQUID
DENSITY 70.00 LBS/CU. FT.
ATTRIBUTES CHEMICAL
ELEMENTS PRESENT ..
COMPOSITION CHROMIC ANHYDRIDE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.10
DAILY RATE 0.00
BATCH SIZE 0.03
RECLAMATION ACTION .. COLLECT

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM PLANT SPECIMENS (BIO E)

GROUP KEY 3.4.4

** EQUIPMENT/EXPERIMENT NO. 7 CIRCADIAN RYTHMS IN PLANTS

ASSOCIATED FPE NUMBER ... 5.10

S/C AREAS AGRICULTURAL STUDY AREA

REMOTE DOCKABLE MODULE

*** WASTE SOURCE NO. 1 CIRCADIAN RYTHMS IN PLANTS

DOCUMENT NO. 3.4.4.7.1*

REMARKS { 1 } FOR OPERATIONAL DESCRIPTION SEE DOCUMENT
NO. A- 3.4.4.8.1

***** WASTE ITEM NO. 1 PLANT MATTER

STATE SOLID

DENSITY 50.00 LBS/CU. FT.

ATTRIBUTES ORGANIC

ELEMENTS PRESENT ..

COMPOSITION CHCN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.00

DAILY RATE 0.01

BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 FILM

STATE SOLID

DENSITY 83.00 LBS/CU. FT.

ATTRIBUTES PLASTIC

ELEMENTS PRESENT ..

COMPOSITION SILVER EMULSION ACLAR

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.60

DAILY RATE 0.05

BATCH SIZE 0.05

RECLAMATION ACTION ..

***** WASTE ITEM NO. 3 FILM WRAPPINGS

STATE SOLID

DENSITY 70.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.60

DAILY RATE 0.01

BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

** MANKED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM PLANT SPECIMENS (BIO E)
GROUP KEY 3.4.4

** EQUIPMENT/EXPERIMENT NO. 7CIRCADIAN RYTHMS IN PLANTS

**** WASTE SOURCE NO. 1 CIRCADIAN RYTHMS IN PLANTS

***** WASTE ITEM NO. 4 TISSUE FIXATIVE

STATE LIQUID

DENSITY 70.00 LBS/CU. FT.

ATTRIBUTES CHEMICAL

ELEMENTS PRESENT ..

COMPOSITION CHROMIC ANHYDRIDE, CH3COOH, FORMALIN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.30

DAILY RATE 0.00

BATCH SIZE 0.10

RECLAMATION ACTION .. COLLECT

***** WASTE ITEM NO. 5 DATA SHEETS

STATE SOLID

DENSITY 70.00 LBS/CU. FT.

ATTRIBUTES SHEET

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.05

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 6 VERMIGULITE

STATE SOLID

DENSITY 10.00 LBS/CU. FT.

ATTRIBUTES MINERAL

ELEMENTS PRESENT ..

COMPOSITION SI02, MGO AL2 O3, FE2 O3, K2O CAO, H2O

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 7.00

DAILY RATE 0.08

BATCH SIZE 0.08

RECLAMATION ACTION .. SIFT, CLEAN

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM PLANT SPECIMENS (BIO E)
GROUP KEY 3.4.4

** EQUIPMENT/EXPERIMENT NO. 7CIRCADIAN RYTHMS IN PLANTS

*** WASTE SOURCE NO. 1 CIRCADIAN RYTHMS IN PLANTS

***** WASTE ITEM NO. 7 BOX

STATE SOLID

DENSITY 56.00 LBS/CU. FT.

ATTRIBUTES PLASTIC

ELEMENTS PRESENT ..

COMPOSITION COPOLYVINYL CHLORIDE, ACETATE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 2.00

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. WASH

S/C SUBSYSTEM PLANT SPECIMENS (BIO E)

GROUP KEY 3.4.4

** EQUIPMENT/EXPERIMENT NO. 8 ALGAE, DUCKWEED IN OG

ASSOCIATED FPE NUMBER ... 5.10

S/C AREAS AGRICULTURAL STUDY AREA

REMOTE DOCKABLE MODULE

**** WASTE SOURCE NO. 1 ALGAE, DUCKWEED IN OG

DOCUMENT NO. 3.4.4.8.1

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, REVISION NO. 1, SEPTEMBER 1, 1969, NASA OMSF.REFERENCE NO. 2 .. KRAUSS, R.W. AND THOMAS, W.H. - THE GROW
TH AND INORGANIC NUTRITION OF SCENEDESM
US OBLIQUUS IN MASS CULTURE. PLANT PHYSI
OL. 29, 205-2114, 1954.REFERENCE NO. 3 .. USAF TECHNICAL OBJECTIVE 00328 (TOD 70-3
) BIOREGENERATIVE LIFE SUPPORT INVESTIGA
TIONS, NOVEMBER 1968.

***** WASTE ITEM NO. 1 WASTE WATER

STATE LIQUID

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 10.00

DAILY RATE 0.16

BATCH SIZE 0.16

RECLAMATION ACTION .. FILTER - DISTILL

***** WASTE ITEM NO. 2 PLANT MATTER

STATE SOLID

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES ORGANIC

ELEMENTS PRESENT ..

COMPOSITION COHN

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 0.00

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. MULCH

S/C SUBSYSTEM PLANT SPECIMENS (BIO E)
GROUP KEY 3.4.4

** EQUIPMENT/EXPERIMENT NO. 8ALGAE, DUCKWEED IN OG

*** WASTE SOURCE NO. 1 ALGAE, DUCKWEED IN OG

***** WASTE ITEM NO. 3 MICROSCOPE SLIDES

STATE SOLID

DENSITY 160.00 LBS/CU. FT.

ATTRIBUTES GLASS

ELEMENTS PRESENT ..

COMPOSITION SIC2

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 2.00

DAILY RATE 0.03

BATCH SIZE 0.03

RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 4 NUTRIENT AND AUXINS

STATE LIQUID

DENSITY 66.00 LBS/CU. FT.

ATTRIBUTES CHEMICALS

ELEMENTS PRESENT ..

COMPOSITION CAB,C,CL,CD,CU,L,FE,ZN,MG,MN,O,N,P,K,SI,
V,MO, INDOLEACIC ACID

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.30

DAILY RATE 0.00

BATCH SIZE 0.10

RECLAMATION ACTION ..

***** WASTE ITEM NO. 5 R/A ISOTOPES

STATE LIQUID

DENSITY 62.40 LBS/CU. FT.

ATTRIBUTES CHEMICAL

ELEMENTS PRESENT .. TRITIUM

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.01

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION ..

S/C SUBSYSTEM PRIMATES
GROUP KEY 3.4.5

BASIC FUNCTION PERFORM MISSION TASKS
FUNCTIONAL REQUIREMENT BIOLOGICAL SCIENCES AND BIOTECHN
OLOGY STUDIES

** EQUIPMENT/EXPERIMENT NO. 1 PHYSIOLOGY OF CHIMPANZEES IN ORB
IT

ASSOCIATED FPE NUMBER ...
S/C AREAS ANIMAL HOUSING

*** WASTE SOURCE NO. 1 PHYSIOLOGY OF CHIMPANZEES IN ORBIT

DOCUMENT NO. 3.4.5.1.1

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, REV NO.1, SEPT.1, 1969, NA
SA GMSF

***** WASTE ITEM NO. 1 FOOD WRAP

STATE SOLID
DENSITY 170.00 LBS/CU. FT.
ATTRIBUTES PLASTIC
ELEMENTS PRESENT .. C2H4
COMPOSITION ETHYLENE

GENERATION DATA ...	QUANTITY (LBS)
EXPT. TOTAL	112.00
DAILY RATE	0.37
BATCH SIZE	0.37
RECLAMATION ACTION .. N/R	

***** WASTE ITEM NO. 2 LITTER

STATE SOLID
DENSITY 43.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION

GENERATION DATA ...	QUANTITY (LBS)
EXPT. TOTAL	300.00
DAILY RATE	1.00
BATCH SIZE	1.00
RECLAMATION ACTION .. N/R	

S/C SUBSYSTEM PRIMATES
GROUP KEY 3.4.5

** EQUIPMENT/EXPERIMENT NO. 1PHYSIOLOGY OF CHIMPANZEES IN ORB
IT

**** WASTE SOURCE NO. 1 PHYSIOLOGY OF CHIMPANZEES IN ORBIT

***** WASTE ITEM NO. 3 HAIR

STATE SOLID

DENSITY 50.00 LBS/CU. FT.

ATTRIBUTES KERATIN

ELEMENTS PRESENT ..

COMPOSITION PROTEIN

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

37.50

DAILY RATE

0.12

BATCH SIZE

0.12

RECLAMATION ACTION ..

***** WASTE ITEM NO. 4 SKIN

STATE SEMI-SOLID

DENSITY 63.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION PROTEIN

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

1.90

DAILY RATE

0.01

BATCH SIZE

0.01

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 5 WIPES

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES SHEET

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

75.00

DAILY RATE

0.25

BATCH SIZE

0.25

RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM PRIMATES
GROUP KEY 3.4.5

** EQUIPMENT/EXPERIMENT NO. 1PHYSIOLOGY OF CHIMPANZEES IN ORB
IT

**** WASTE SOURCE NO. 1 PHYSIOLOGY OF CHIMPANZEES IN ORBIT

***** WASTE ITEM NO. 6 GLOVE

STATE SOLID

DENSITY 63.00 LBS/CU. FT.

ATTRIBUTES FLAT

ELEMENTS PRESENT .. (CH(C6H5)CH2)

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 9.37

DAILY RATE 0.03

BATCH SIZE 0.03

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 7 WASTE WATER

STATE LIQUID

DENSITY 62.40 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT .. H2O

COMPOSITION WATER

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 3.00

DAILY RATE 0.01

BATCH SIZE 0.01

RECLAMATION ACTION .. DISTILL

***** WASTE ITEM NO. 8 URINE

STATE LIQUID

DENSITY 62.40 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT .. H2O

COMPOSITION WATER

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 3000.00

DAILY RATE 10.00

BATCH SIZE 10.00

RECLAMATION ACTION .. DISTILL

S/C SUBSYSTEM PRIMATES
GROUP KEY 3.4.5

** EQUIPMENT/EXPERIMENT NO. 1PHYSIOLOGY OF CHIMPANZEES IN ORB
IT

*** WASTE SOURCE NO. 1 PHYSIOLOGY OF CHIMPANZEES IN ORBIT

***** WASTE ITEM NO. 9 CHIMPANZEE

STATE CARCASS

DENSITY 62.40 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION PROTIEEN AND MINERALS

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 84.00

DAILY RATE 0.00

BATCH SIZE 84.00

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 10 CLEANING SOLUTION

STATE LIQUID

DENSITY 63.00 LBS/CU. FT.

ATTRIBUTES BACTERIOCID

ELEMENTS PRESENT ..

COMPOSITION QUATERNARY AMMONIA

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 187.50

DAILY RATE 0.60

BATCH SIZE 0.60

RECLAMATION ACTION ..

***** WASTE ITEM NO. 11 DATA PAPER

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES SHEETS

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 3.00

DAILY RATE 0.01

BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM PRIMATES
GROUP KEY 3.4.5

** EQUIPMENT/EXPERIMENT NO. 1PHYSIOLOGY OF CHIMPANZEES IN ORB
IT

**** WASTE SOURCE NO. 1 PHYSIOLOGY OF CHIMPANZEES IN ORBIT

**** ** WASTE ITEM NO. 12 ELECTRONIC SENSOR

STATE SOLID

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES GLASS METAL TUBES

ELEMENTS PRESENT .. SIC2

COMPOSITION STEEL

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.00

DAILY RATE 0.00

BATCH SIZE 0.02

RECLAMATION ACTION .. NONE

**** ** WASTE ITEM NO. 13 FECES

STATE

DENSITY 58.00 LBS/CU. FT.

ATTRIBUTES SEMI-SOLID BLOB

ELEMENTS PRESENT ..

COMPOSITION PROTIEIN PLUS

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 750.00

DAILY RATE 2.50

BATCH SIZE 2.50

RECLAMATION ACTION .. N/R

**** ** WASTE ITEM NO. 14 DRY CHEMISTRY COMPONENTS

STATE

DENSITY 74.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.00

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM PRIMATES

GROUP KEY 3.4.5

** EQUIPMENT/EXPERIMENT NO. 1PHYSIOLOGY OF CHIMPANZEES IN ORB
IT

*** WASTE SOURCE NO. 1 PHYSIOLOGY OF CHIMPANZEES IN ORBIT

***** WASTE ITEM NO. 15 FGDD PARTICLES

STATE SOLID

DENSITY 95.00 LBS/CU. FT.

ATTRIBUTES AEROSOL AND BITS

ELEMENTS PRESENT .. CHCN

COMPOSITION

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 1.00

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM PRIMATES

GROUP KEY 3.4.5

** EQUIPMENT/EXPERIMENT NO. 2 HEMODYNAMICS AND METABOLIC EFFECTS ON MONKEYS

ASSOCIATED FPE NUMBER ...

S/C AREAS ANIMAL HOUSING

**** WASTE SOURCE NO. 1 HEMODYNAMICS AND METABOLIC EFFECTS ON MONKEYS

DOCUMENT NO. 3.4.5.2.1

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH ORBITAL MISSION, REVISION NO.1, SEPT.1,1969, NASA QMSF

***** WASTE ITEM NO. 1 FOOD WRAPS

STATE SOLID

DENSITY 63.00 LBS/CU. FT.

ATTRIBUTES PLASTIC FILM

ELEMENTS PRESENT .. COH4

COMPOSITION ETHELENE

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

60.00

DAILY RATE

0.25

BATCH SIZE

0.25

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 LITTER

STATE SOLID

DENSITY 43.00 LBS/CU. FT.

ATTRIBUTES ..

ELEMENTS PRESENT ..

COMPOSITION ..

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

180.00

DAILY RATE

0.75

BATCH SIZE

0.75

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 3 SKIN

STATE SEMI-SOLID

DENSITY 63.00 LBS/CU. FT.

ATTRIBUTES ..

ELEMENTS PRESENT ..

COMPOSITION PROTEIN

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

0.50

DAILY RATE

0.00

BATCH SIZE

0.00

RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM PRIMATES
GROUP KEY 3.4.5

** EQUIPMENT/EXPERIMENT NO. 2HEMODYNAMICS AND METABOLIC EFFEC
TS ON MONKEYS

*** WASTE SOURCE NO. 1 HEMODYNAMICS AND METABOLIC EFFECTS ON MO
NKEYS

***** WASTE ITEM NO. 4 HAIR
STATE SOLID
DENSITY 50.00 LBS/CU. FT.
ATTRIBUTES KERATIN
ELEMENTS PRESENT ..
COMPOSITION PROCTEN
GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 14.40
DAILY RATE 0.06
BATCH SIZE 0.06

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 5 WIPES
STATE SOLID
DENSITY 72.00 LBS/CU. FT.
ATTRIBUTES SHEETS
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 40.00
DAILY RATE 0.17
BATCH SIZE 0.17

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 6 GLOVES
STATE SOLID
DENSITY 63.00 LBS/CU. FT.
ATTRIBUTES FLAT
ELEMENTS PRESENT ..
COMPOSITION PLASTIC
GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 5.00
DAILY RATE 0.02
BATCH SIZE 0.02

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM PRIMATES
GROUP KEY 3,4,5

** EQUIPMENT/EXPERIMENT NO. 2HEMODYNAMICS AND METABOLIC EFFEC
TS ON MONKEYS

**** WASTE SOURCE NO. 1 HEMODYNAMICS AND METABOLIC EFFECTS ON MO
NKEYS

***** WASTE ITEM NO. 7 FOOD PARTICLES

STATE SOLID
DENSITY 95.00 LBS/CU. FT.
ATTRIBUTES AEROSOL, BITS
ELEMENTS PRESENT .. CHCN
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.00
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION ..

***** WASTE ITEM NO. 8 CLEANSING SOLUTION

STATE LIQUID
DENSITY 63.00 LBS/CU. FT.
ATTRIBUTES BACTERIOCIDIC
ELEMENTS PRESENT ..
COMPOSITION QUATERNARY, AMMONIA
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 100.00
DAILY RATE 0.40
BATCH SIZE 0.40
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 9 DATA PAPER

STATE SOLID
DENSITY 70.00 LBS/CU. FT.
ATTRIBUTES SHEETS
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 2.00
DAILY RATE 0.01
BATCH SIZE 0.01
RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM PRIMATES
GROUP KEY 3.4.5

** EQUIPMENT/EXPERIMENT NO. 2HEMODYNAMICS AND METABOLIC EFFEC
TS ON MONKEYS

*** WASTE SOURCE NO. 1 HEMODYNAMICS AND METABOLIC EFFECTS ON MO
NKEYS

***** WASTE ITEM NO. 10 SYRINGE

STATE SOLID

DENSITY 160.00 LBS/CU. FT.

ATTRIBUTES GLASS

ELEMENTS PRESENT ..

COMPOSITION SIC2

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

10.00

DAILY RATE

0.00

BATCH SIZE

0.00

RECLAMATION ACTION .. STERILIZE

***** WASTE ITEM NO. 11 NEEDLE

STATE SOLID

DENSITY 488.00 LBS/CU. FT.

ATTRIBUTES STEEL

ELEMENTS PRESENT ..

COMPOSITION FEC

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

0.50

-- DAILY RATE

0.00

BATCH SIZE

0.01

RECLAMATION ACTION .. STERILIZE

***** WASTE ITEM NO. 12 WASTE WATER

STATE LIQUID

DENSITY 62.40 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT .. H2O

COMPOSITION WATER

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

2.00

DAILY RATE

0.01

BATCH SIZE

0.01

RECLAMATION ACTION .. DISTILL

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM PRIMATES
GROUP KEY 3.4.5

** EQUIPMENT/EXPERIMENT NO. 2HEMODYNAMICS AND METABOLIC EFFEC
TS ON MONKEYS

*** WASTE SOURCE NO. 1 HEMODYNAMICS AND METABOLIC EFFECTS ON MO
NKEYS

***** WASTE ITEM NO. 13 DRY CHEMISTRY COMPONENTS

STATE SOLID

DENSITY 74.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE, CHEMICALS

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.00

DAILY RATE 0.00

BATCH SIZE 0.02

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 14 MONKEY

STATE

DENSITY 62.40 LBS/CU. FT.

ATTRIBUTES CARCASS

ELEMENTS PRESENT ..

COMPOSITION PROTEIN, MINERALS

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 2.00

DAILY RATE 0.00

BATCH SIZE 2.00

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 15 ELECTRONIC SENSORS

STATE

DENSITY 170.00 LBS/CU. FT.

ATTRIBUTES GLASS, METAL TUBES

ELEMENTS PRESENT .. SiO2

COMPOSITION STEEL

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.00

DAILY RATE 0.00

BATCH SIZE 0.02

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

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RUN NO. ** 2 **

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S/C SUBSYSTEM PRIMATES
GROUP KEY 3.4.5

** EQUIPMENT/EXPERIMENT NO. 2HEMODYNAMICS AND METABOLIC EFFECTS ON MONKEYS

*** WASTE SOURCE NO. 1 HEMODYNAMICS AND METABOLIC EFFECTS ON MONKEYS

***** WASTE ITEM NO. 16 URINE
STATE LIQUID
DENSITY 62.40 LBS/CU. FT.
ATTRIBUTES CHEMICALS
ELEMENTS PRESENT .. H2O
COMPOSITION WATER
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 576.00
DAILY RATE 2.40
BATCH SIZE 2.40
RECLAMATION ACTION .. DISTILL

***** WASTE ITEM NO. 17 FECES
STATE SEMI-SOLID BLOB
DENSITY 58.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT .. PROTEIN
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 240.00
DAILY RATE 1.00
BATCH SIZE 1.00
RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

MEDICAL STUDIES/TASKS¹

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RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (A)

GROUP KEY 3.5.1

BASIC FUNCTION PERFORM MISSION TASKS

FUNCTIONAL REQUIREMENT BIOTECHNOLOGY AND HUMAN RESEARCH

** EQUIPMENT/EXPERIMENT NO. 1 NEUROPHYSIOLOGY

ASSOCIATED FPE NUMBER ... 5.13

S/C AREAS MEDICAL LABORATORY

**~* WASTE SOURCE NO. 1 EFFECTS OF HEAD MOVEMENT DURING ROTATION

DOCUMENT NO. 3.5.1.1.1

REFERENCE NO. 1 .. MEDICAL ASPECTS OF AN ORBITING RESEARCH
LABORATORY, NASA SPACE MEDICINE ADVISORY
GROUP, NASA REPORT NO. SP-86, 1960.

REFERENCE NO. 2 .. NASA EXPERIMENT DESCRIPTIONS FOR EXTENDED
D APOLLO EARTH-ORBIT FLIGHTS, NASA HEADQUARTERS,
WASHINGTON, D.C., MARCH 1965.

REFERENCE NO. 3 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, REVISION NO. 1, SEPTEMBER 1, 1969, NASA DMSF.

REFERENCE NO. 4 .. FEASIBILITY STUDY OF A CENTRIFUGE EXPERIMENT
FOR THE AAP, NASA RFPL 7631.

REFERENCE NO. 5 .. IMBLMS

***** WASTE ITEM NO. 1 EEG TRACE PAPER

STATE SOLID

DENSITY 44.00 LBS/CU. FT.

ATTRIBUTES STRIP

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 2.00

DAILY RATE 0.01

BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

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RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (A) .
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 1NEUROPHYSIOLOGY

**** WASTE SOURCE NO. 1 EFFECTS OF HEAD MOVEMENT DURING ROTATION

***** WASTE ITEM NO. 2 FILM

STATE SOLID

DENSITY 83.00 LBS/CU. FT.

ATTRIBUTES PLASTIC

ELEMENTS PRESENT ..

COMPOSITION ACLAR, SILVER EMULSION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.50

DAILY RATE 0.01

BATCH SIZE 0.01

RECLAMATION ACTION .. UNKNOWN

***** WASTE ITEM NO. 3 FILM WRAPPINGS

STATE SOLID

DENSITY 70.00 LBS/CU. FT.

ATTRIBUTES SHEETS

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 2.50

DAILY RATE 0.00

BATCH SIZE 0.50

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 4 VOMITUS

STATE LIQUID

DENSITY 60.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION CHON

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 3.00

DAILY RATE 0.00

BATCH SIZE 1.00

RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (A)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 1 NEUROPHYSIOLOGY

*** WASTE SOURCE NO. 2 SENSITIVITY OF OTOLITH AND SEMI-CIRCULAR
CANAL MECHANISMS
DOCUMENT NO. 3.5.1.1.2

REMARKS (1) FOR OPERATIONAL DESCRIPTION SEE DOCUMENT
NO. A- 3.5.1.1.1

***** WASTE ITEM NO. 1 EEG TRACE PAPER

STATE SOLID
DENSITY 44.00 LBS/CU. FT.
ATTRIBUTES STRIP
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.00
DAILY RATE 0.00
BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 CONTACT PASTE

STATE SEMI-SOLID
DENSITY 53.00 LBS/CU. FT.
ATTRIBUTES PASTE
ELEMENTS PRESENT ..
COMPOSITION KCL
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.20
DAILY RATE 0.00
BATCH SIZE 0.00

RECLAMATION ACTION .. COLLECT, REHYDRATE

***** WASTE ITEM NO. 3 FILM

STATE SOLID
DENSITY 83.00 LBS/CU. FT.
ATTRIBUTES PLASTIC, STRIPS
ELEMENTS PRESENT ..
COMPOSITION ACLAR, SILVER EMULSION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 15.00
DAILY RATE 0.00
BATCH SIZE 0.13

RECLAMATION ACTION .. UNKNOWN

** MANNED SPACECRAFT WASTE GENERATION DATA **

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RUN NC. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (A)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 1 NEUROPHYSIOLOGY
*** WASTE SOURCE NO. 2 SENSITIVITY OF OTOLITH AND SEMI-CIRCULAR
CANAL MECHANISMS

***** WASTE ITEM NO. 4 FILM WRAPPING
STATE SOLID
DENSITY 70.00 LBS/CU. FT.
ATTRIBUTES SHEETS
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 5.00
DAILY RATE 0.00
BATCH SIZE 0.04
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 5 DATA SHEETS
STATE SOLID
DENSITY 49.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.50
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION ..

** MANNED SPACECRAFT WASTE GENERATION DATA **

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RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (A)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 1 NEUROPHYSIOLOGY

**** WASTE SOURCE NO. 3 EFFECT OF DAY-NIGHT CYCLES, EFFECT ON LIT
TER SIZE AND ON EEG OF CATS
DOCUMENT NO. 3.5.1.1.3

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, REVISION NO. 1, SEPTEMBER
1, 1969, NASA OMSF.

***** WASTE ITEM NO. 1 URINE
STATE LIQUID
DENSITY 63.00 LBS/CU. FT.
ATTRIBUTES CHEMICAL
ELEMENTS PRESENT ..
COMPOSITION CHCN, WATER
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 180.00
DAILY RATE 0.50
BATCH SIZE 0.50
RECLAMATION ACTION .. DISTILL TO WATER

***** WASTE ITEM NO. 2 FECES
STATE SEMI-SOLID
DENSITY 58.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION CHCN
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 100.00
DAILY RATE 0.27
BATCH SIZE 0.27
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 3 FILM
STATE SOLID
DENSITY 83.00 LBS/CU. FT.
ATTRIBUTES PLASTIC, STRIPS
ELEMENTS PRESENT ..
COMPOSITION ACLAR, SILVER EMULSION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.00
DAILY RATE 0.00
BATCH SIZE 0.01
RECLAMATION ACTION .. UNKNOWN

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RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (A) ,
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. : 1NEUROPHYSIOLOGY
*** WASTE SOURCE NO. 3 EFFECT OF DAY-NIGHT CYCLES,EFFECT ON LIT
TER SIZE AND ON EEG OF CATS

***** WASTE ITEM NO. 4 FOOD PARTICLES
STATE SOLID
DENSITY 95.00 LBS/CU. FT.
ATTRIBUTES AEROSOL, BITS
ELEMENTS PRESENT ..
COMPOSITION CHON
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.00
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION ..

***** WASTE ITEM NO. 5 WASTE WATER
STATE LIQUID
DENSITY 62.40 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION WATER
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 10.00
DAILY RATE 0.03
BATCH SIZE 0.03
RECLAMATION ACTION .. DISTILL

***** WASTE ITEM NO. 6 CONTACT PASTE
STATE SEMI-LIQUID
DENSITY 53.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION KCL
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.50
DAILY RATE 0.00
BATCH SIZE 0.01
RECLAMATION ACTION .. COLLECT, REHYDRATE

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (A)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 1 NEUROPHYSIOLOGY
*** WASTE SOURCE NO. 3 EFFECT OF DAY-NIGHT CYCLES, EFFECT ON LIT
TER SIZE AND ON EEG OF CATS

*** WASTE ITEM NO. 7 LITTER
STATE SOLID
DENSITY 20.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 15.00
DAILY RATE 0.04
BATCH SIZE 0.04
RECLAMATION ACTION .. N/R

*** WASTE ITEM NO. 3 6 RATS
STATE SOLID
DENSITY 0.00 LBS/CU. FT.
ATTRIBUTES CARCASS
ELEMENTS PRESENT ..
COMPOSITION PROTEIN, MINERALS
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 3.00
DAILY RATE 0.00
BATCH SIZE 3.00
RECLAMATION ACTION .. N/R

*** WASTE ITEM NO. 9 2 CATS
STATE SOLID
DENSITY 0.00 LBS/CU. FT.
ATTRIBUTES CARCASS
ELEMENTS PRESENT ..
COMPOSITION PROTEIN AND MINERALS
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 3.00
DAILY RATE 0.00
BATCH SIZE 3.00
RECLAMATION ACTION .. N/R

11/30/70

RUN NO.- ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (A)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. ' 1NEUROPHYSIOLOGY

**** WASTE SOURCE NO. 3 EFFECT OF DAY-NIGHT CYCLES,EFFECT ON LIT
TER SIZE AND ON EEG OF CATS

**** ** WASTE ITEM NO. 10 AMMONIA GAS

STATE GAS

DENSITY 0.05 LBS/CU. FT.

ATTRIBUTES FUMES

ELEMENTS PRESENT ..

COMPOSITION AMMONIA

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

0.10

DAILY RATE

0.00

BATCH SIZE

0.00

RECLAMATION ACTION ..

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (A)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 1 NEUROPHYSIOLOGY

**** WASTE SOURCE NO. 4 HUMAN VESTIBULAR FUNCTION

DOCUMENT NO. 3.5.1.1.4

REMARKS (1) FOR OPERATIONAL DESCRIPTION SEE DOCUMENT
NO. A- 3.5.1.1.1

**** * WASTE ITEM NO. 1 EEG TRACE PAPER

STATE SOLID

DENSITY 44.00 LBS/CU. FT.

ATTRIBUTES STRIP

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.00

DAILY RATE 0.00

BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

**** * WASTE ITEM NO. 2 FILM

STATE SOLID

DENSITY 83.00 LBS/CU. FT.

ATTRIBUTES PLASTIC, STRIP

ELEMENTS PRESENT ..

COMPOSITION ACLAR, SILVER EMULSION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 2.00

DAILY RATE 0.00

BATCH SIZE 0.02

RECLAMATION ACTION .. UNKNOWN

**** * WASTE ITEM NO. 3 DATA SHEETS

STATE SOLID

DENSITY 49.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.00

DAILY RATE 0.00

BATCH SIZE 0.01

RECLAMATION ACTION ..

** MANNED SPACECRAFT WASTE GENERATION DATA **

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RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (A)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 1 NEUROPHYSIOLOGY

*** WASTE SOURCE NO. 4 HUMAN VESTIBULAR FUNCTION

***** WASTE ITEM NO. 4 VOMITUS

STATE LIQUID

DENSITY 60.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION CHCN

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 1.00

DAILY RATE 0.00

BATCH SIZE 0.20

RECLAMATION ACTION ..

S/C SUBSYSTEM BIOMEDICAL RESEARCH (B)
 GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 2 CARDIOVASCULAR

ASSOCIATED FPE NUMBER ... 5.13
 S/C AREAS MEDICAL LABORATORY

*** WASTE SOURCE NO. 1 CHANGES IN CIRCULATORY RESPONSE TO EXERCISE
 DOCUMENT NO. 3.5.1.2.1

REFERENCE NO. 1 .. MEDICAL ASPECTS OF AN ORBITING RESEARCH
 LABORATORY, NASA SPACE MEDICINE ADVISORY
 GROUP, NASA REPORT NO. SP-86, 1966.

REFERENCE NO. 2 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
 BITAL MISSIONS, REVISION NO. 1, SEPTEMBER
 1, 1969, NASA DMSF.

***** WASTE ITEM NO. 1 AUDIO TAPE
 STATE SOLID
 DENSITY 105.00 LBS/CU. FT.
 ATTRIBUTES PLASTIC STRIPS
 ELEMENTS PRESENT ..
 COMPOSITION ACLAR-FeO2
 GENERATION DATA ... QUANTITY (LBS)
 EXPT. TOTAL 3.00
 DAILY RATE 0.00
 BATCH SIZE 0.05
 RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 EKC PAPER/TAPE
 STATE SOLID
 DENSITY 44.00 LBS/CU. FT.
 ATTRIBUTES SHEETS
 ELEMENTS PRESENT ..
 COMPOSITION CELLULOSE
 GENERATION DATA ... QUANTITY (LBS)
 EXPT. TOTAL 10.00
 DAILY RATE 0.00
 BATCH SIZE 0.18
 RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (B)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 2CARDIOVASCULAR
**** WASTE SOURCE NO. 1 CHANGES IN CIRCULATORY RESPONSE TO EXERC
ISE

***** WASTE ITEM NO. 3 CONTACT PASTE
STATE SEMI-LIQUID
DENSITY 53.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION POTASSIUM CHLORIDE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.50
DAILY RATE 0.00
BATCH SIZE 0.01
RECLAMATION ACTION .. COLLECT REHYDRATE

***** WASTE ITEM NO. 4 HAIR
STATE SEMI SOLID
DENSITY 55.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION KERATIN
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.00
DAILY RATE 0.00
BATCH SIZE 0.02
RECLAMATION ACTION .. COLLECT AND WASH

***** WASTE ITEM NO. 5 SKIN
STATE SOLID
DENSITY 59.00 LBS/CU. FT.
ATTRIBUTES FLAKES
ELEMENTS PRESENT ..
COMPOSITION PROTEIN
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.30
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (B)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 2 CARDIOVASCULAR
*** WASTE SOURCE NO. 1 CHANGES IN CIRCULATORY RESPONSE TO EXERCISE

***** WASTE ITEM NO. 6 INSTRUMENT WASTE

STATE SOLIDS

DENSITY 185.00 LBS/CU. FT.

ATTRIBUTES WIRES ETC.

ELEMENTS PRESENT .. CU, AL, ETC.

COMPOSITION SIC2, FEC

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 5.00

DAILY RATE 0.00

BATCH SIZE 5.00

RECLAMATION ACTION .. UNKNOWN

11/30/70

RUN NO. 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (B)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 2CARDIOVASCULAR

**** WASTE SOURCE NO. 2 EFFECT OF BLOOD DISTRIBUTION ON ARTERIAL
PRESSURE CONTROL SYSTEMS
DOCUMENT NO.

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, REVISION NO. 1, SEPTEMBER 1, 1969, NASA OMSF.

REFERENCE NO. 2 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL TORY, NASA SPACE MEDICINE ADVISORY
GROUP, NASA REPORT NO. SP-86, 1966MISSIONS, REVISION NO. 1, SEPTEMBER 1, 1969,

***** WASTE ITEM NO. 1 INSTRUMENTATION
STATE SOLID
DENSITY 185.00 LBS/CU. FT.
ATTRIBUTES GLASS AND METAL TUBE
ELEMENTS PRESENT ..

COMPOSITION SI02-FEC

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL, 10.00

DAILY RATE 0.00

BATCH SIZE 10.00

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 2 FILM
STATE SOLID
DENSITY 83.00 LBS/CU. FT.
ATTRIBUTES PLASTIC
ELEMENTS PRESENT ..

COMPOSITION ACLAR,SILVER EMULSION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.50

DAILY RATE 0.00

BATCH SIZE 0.02

RECLAMATION ACTION .. UNKNOWN

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (B)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 2CARDIOVASCULAR
*** WASTE SOURCE NO. 2 EFFECT OF BLOOD DISTRIBUTION ON ARTERIAL
PRESSURE CONTROL SYSTEMS

**** WASTE ITEM NO. 3 DATA SHEETS
STATE SOLID
DENSITY 44.00 LBS/CU. FT.
ATTRIBUTES SHEETS
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.00
DAILY RATE 0.00
BATCH SIZE 0.02
RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 4 CAPILLARY TUBES
STATE SOLID
DENSITY 160.00 LBS/CU. FT.
ATTRIBUTES GLASS TUBES
ELEMENTS PRESENT ..
COMPOSITION SIC2
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.25
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. WASH, DRY STERILIZE

***** WASTE ITEM NO. 5 CHEMICAL REACTANTS
STATE LIQUID
DENSITY 56.00 LBS/CU. FT.
ATTRIBUTES CHEMICALS
ELEMENTS PRESENT ..
COMPOSITION HCL, H2O, NAIO4, NACLK2CO3, NA2, S2O5, C2H4O2,
CH3O-(OH)C6H3CHO
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 5.00
DAILY RATE 0.00
BATCH SIZE 0.09
RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

PAGE 364

S/C SUBSYSTEM BIOMEDICAL RESEARCH (B)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 2CARDIOVASCULAR
**** WASTE SOURCE NO. 2 EFFECT OF BLOOD DISTRIBUTION ON ARTERIAL
PRESSURE CONTROL SYSTEMS

***** WASTE ITEM NO. 6 BLCOD
STATE LIQUID
DENSITY 65.52 LBS/CU. FT.
ATTRIBUTES ORGANIC
ELEMENTS PRESENT ..
COMPOSITION PROTEIN-SALTS CHON
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 4.00
DAILY RATE 0.00
BATCH SIZE 0.07
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 7 URINE
STATE LIQUID
DENSITY 63.60 LBS/CU. FT.
ATTRIBUTES ORGANIC
ELEMENTS PRESENT ..
COMPOSITION WATER
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 73.50
DAILY RATE 0.00
BATCH SIZE 1.26
RECLAMATION ACTION .. DISTILL

***** WASTE ITEM NO. 8 GAUZE
STATE SOLID
DENSITY 90.48 LBS/CU. FT.
ATTRIBUTES NET
ELEMENTS PRESENT ..
COMPOSITION C6H10O5
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.10
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

PAGE 365

S/C SUBSYSTEM BIOMEDICAL RESEARCH (B)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 2CARDIOVASCULAR
*** WASTE SOURCE NO. 2 EFFECT OF BLOOD DISTRIBUTION ON ARTERIAL
PRESSURE CONTROL SYSTEMS

***** WASTE ITEM NO. 9 CONTACT PASTE
STATE SEMI SOLID
DENSITY 53.00 LBS/CU. FT.
ATTRIBUTES PASTE
ELEMENTS PRESENT ..
COMPOSITION KCL
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.50
DAILY RATE 0.00
BATCH SIZE 0.01
RECLAMATION ACTION .. COLLECT-REHYDRATE

***** WASTE ITEM NO. 10 SYRINGE
STATE SOLID
DENSITY 160.00 LBS/CU. FT.
ATTRIBUTES GLASS
ELEMENTS PRESENT ..
COMPOSITION SiO2
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 10.80
DAILY RATE 0.00
BATCH SIZE 0.18
RECLAMATION ACTION .. CLEAN,STERILIZE

***** WASTE ITEM NO. 11 NEEDLE
STATE SOLID
DENSITY 488.00 LBS/CU. FT.
ATTRIBUTES STEEL
ELEMENTS PRESENT .. FE,C
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.20
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. CLEAN,STERILIZE

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (B) .
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 2CARDIOVASCULAR

**** WASTE SOURCE NO. 3 ALTERATIONS IN VENOUS COMPLIANCE DUE TO
THE ABSENCE OF HYDROSTATIC PRESSURE
DOCUMENT NO. 3.5.1.2.3

REMARKS (1) FOR OPERATIONAL DESCRIPTION SEE DOCUMENT
NO. A-3.5.1.2.2

***** WASTE ITEM NO. 1 DATA SHEETS

STATE SOLID

DENSITY 50.00 LBS/CU. FT.

ATTRIBUTES SHEETS

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL : 0.10

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (B)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 2CARDIOVASCULAR

****/*****

**** WASTE SOURCE NO. 4 CARDIAC DYNAMICS

DOCUMENT NO. 3.5.1.2.4

REMARKS (1) FOR OPERATIONAL DESCRIPTION SEE DOCUMENT
NO. A-3.5.1.2.1

**** WASTE ITEM NO. 1 AUDIO TAPE

STATE SOLID

DENSITY 330.00 LBS/CU. FT.

ATTRIBUTES PLASTIC STRIP

ELEMENTS PRESENT ..

COMPOSITION ACLAR,FE02

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

2.50

DAILY RATE

0.00

BATCH SIZE

0.03

RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 2 EKG PAPER/TAPE

STATE SOLID

DENSITY 44.00 LBS/CU. FT.

ATTRIBUTES STRIPS

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

2.50

DAILY RATE

0.00

BATCH SIZE

0.03

RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 3 INSTRUMENTS

STATE SOLID

DENSITY 185.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION SIC2-FEC

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

10.00

DAILY RATE

0.00

BATCH SIZE

10.00

RECLAMATION ACTION .. REPAIR

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. *** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (B)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 2CARDIOVASCULAR

*** WASTE SOURCE NO. 4 CARDIAC DYNAMICS

***** WASTE ITEM NO. 4 CONTACT PASTE

STATE SEMI SOLID

DENSITY 53.00 LBS/CU. FT.

ATTRIBUTES PASTE

ELEMENTS PRESENT ..

COMPOSITION KCL

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.50

DAILY RATE 0.00

BATCH SIZE 0.01

RECLAMATION ACTION .. COLLECT-REHYDRATE

***** WASTE ITEM NO. 5 DATA SHEETS

STATE SOLID

DENSITY 4.60 LBS/CU. FT.

ATTRIBUTES SHEETS

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.50

DAILY RATE 0.00

BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (B)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 2 CARDIOVASCULAR

**** WASTE SOURCE NO. 5 INTRAOCULAR ARTERIAL BLOOD PRESSURE

DOCUMENT NO. 3.5.1.2.5

REMARKS (1) FOR OPERATIONAL DESCRIPTION SEE DOCUMENT
NO. A-3.5.1.2.2

***** WASTE ITEM NO. 1 DATA SHEETS

STATE SOLID

DENSITY 44.00 LBS/CU. FT.

ATTRIBUTES SHEETS

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.00

DAILY RATE 0.00

BATCH SIZE 0.90

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 INSTRUMENTATION

STATE SOLID

DENSITY 180.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION METAL, PLASTIC

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 3.00

DAILY RATE 0.00

BATCH SIZE 1.00

RECLAMATION ACTION .. REPAIR

11/30/70

RUN NO.~** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (B)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 2CARDIOVASCULAR

**** WASTE SOURCE NO. 6 CARDIAC OUTPUT DIRECT VERSUS INDIRECT

DOCUMENT NO. 3.5.1.2.6

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, REVISION NO. 1, SEPTEMBE
R 1, 1969, NASA DMSF.

***** WASTE ITEM NO. 1 DATA SHEETS

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES SHEETS

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

1.00

DAILY RATE

0.00

BATCH SIZE

0.04

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 FOOD PARTICLES

STATE SOLID

DENSITY 95.00 LBS/CU. FT.

ATTRIBUTES AEROSOLS AND BITS

ELEMENTS PRESENT ..

COMPOSITION CHON

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

5.00

DAILY RATE

0.01

BATCH SIZE

0.01

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 3 CAPILLARY TUBES

STATE SOLID

DENSITY 160.00 LBS/CU. FT.

ATTRIBUTES TUBES-GLASS

ELEMENTS PRESENT ..

COMPOSITION SIO2

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

0.25

DAILY RATE

0.00

BATCH SIZE

0.01

RECLAMATION ACTION .. WASH,STERILIZE

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (B)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 2CARDIOVASCULAR
*** WASTE SOURCE NO. 6 CARDIAC OUTPUT DIRECT VERSUS INDIRECT

***** WASTE ITEM NO. 4 CENTRIFUGE TUBES
STATE SOLID
DENSITY 160.00 LBS/CU. FT.
ATTRIBUTES CONTAINER GLASS
ELEMENTS PRESENT ..
COMPOSITION SIC2
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 3.00
DAILY RATE 0.00
BATCH SIZE 0.12
RECLAMATION ACTION .. WASH,STERILIZE

***** WASTE ITEM NO. 5 CONTACT PASTE
STATE SEMI SOLID
DENSITY 53.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT .. K,CL
COMPOSITION --
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.25
DAILY RATE 0.00
BATCH SIZE 0.01
RECLAMATION ACTION .. COLLECT REHYDRATE

***** WASTE ITEM NO. 6 WASTE WATER
STATE LIQUID
DENSITY 62.40 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION WATER
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 7.00
DAILY RATE 0.02
BATCH SIZE 0.02
RECLAMATION ACTION .. DISTILL

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (B)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 2CARDIOVASCULAR

*** WASTE SOURCE NO. 6 CARDIAC OUTPUT DIRECT VERSUS INDIRECT

***** WASTE ITEM NO. 7 SYRINGE

STATE SOLID

DENSITY 160.00 LBS/CU. FT.

ATTRIBUTES GLASS

ELEMENTS PRESENT ..

COMPOSITION SIO2

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

3.00

DAILY RATE

0.00

BATCH SIZE

0.12

RECLAMATION ACTION .. WASH,STERILIZE

***** WASTE ITEM NO. 8 NEEDLE

STATE SOLID

DENSITY 488.00 LBS/CU. FT.

ATTRIBUTES STEEL TUBE

ELEMENTS PRESENT .. FE,C

COMPOSITION

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

0.10

DAILY RATE

0.00

BATCH SIZE

0.00

RECLAMATION ACTION .. WASH STERILIZE

***** WASTE ITEM NO. 9 GAUZE

STATE SOLID

DENSITY 90.50 LBS/CU. FT.

ATTRIBUTES COTTON

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

0.30

DAILY RATE

0.00

BATCH SIZE

0.01

RECLAMATION ACTION .. N/R

11/31/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (B)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 2 CARDIOVASCULAR
*** WASTE SOURCE NO. 6 CARDIAC OUTPUT DIRECT VERSUS INDIRECT
/***

**** WASTE ITEM NO. 10 INSTRUMENTS
STATE SOLID
DENSITY 0.00 LBS/CU. FT.
ATTRIBUTES GLASS METAL
ELEMENTS PRESENT .. SI, O₂, FE, C
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 4.00
DAILY RATE 0.00
BATCH SIZE 0.15
RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 11 URINE
STATE LIQUID
DENSITY 62.40 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION WATER
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 50.00
DAILY RATE 0.14
BATCH SIZE 0.14
RECLAMATION ACTION .. DISTILL

***** WASTE ITEM NO. 12 FECES
STATE SEMI SOLID
DENSITY 66.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT .. C, H, O, N
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 32.40
DAILY RATE 0.09
BATCH SIZE 0.09
RECLAMATION ACTION .. A/R

11/30/70

RUN NO. *** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (B)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 2 CARDIOVASCULAR
**** WASTE SOURCE NO. 6 CARDIAC OUTPUT DIRECT VERSUS INDIRECT
**** ****

***** WASTE ITEM NO. 13 LITTER
STATE SOLID
DENSITY 43.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 15.00
DAILY RATE 0.04
BATCH SIZE 0.04
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 14 2 MINATURE SWINE
STATE SOLID
DENSITY 0.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION PROTEIN-MINERALS
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 4.00
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

11/30/70

RUN AC. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (B)
GROUP KEY 3.5.]

** EQUIPMENT/EXPERIMENT NO. 2 CARDIOVASCULAR

*** WASTE SOURCE NO. 7 USE OF A LBNP DEVICE TO PREVENT C.V. DEC
CONDITIONING
DOCUMENT NO. 3.5.1.2.7

REFERENCE NO. 1 .. MEDICAL ASPECTS OF AN ORBITING RESEARCH
LABORATORY, NASA SPACE MEDICINE ADVISORY
GROUP, NASA REPORT NO. P-86, 1966.

REFERENCE NO. 2 .. NASA EXPERIMENT DESCRIPTIONS FOR EXTENDED
D APOLLO EARTH-ORBIT FLIGHTS, NASA HEADQUARTERS,
WASHINGTON, D.C., MARCH 1965.

REFERENCE NO. 3 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, REVISION NO. 1, SEPTEMBER 1, 1969, NASA OMSF.

*** WASTE ITEM NO. 1 CONTACT PASTE

STATE SEMI SOLID
DENSITY 53.00 LBS/CU. FT.

ATTRIBUTES
ELEMENTS PRESENT .. K₂CL
COMPOSITION

GENERATION DATA ...	QUANTITY (LBS)
EXPT. TOTAL	0.25
DAILY RATE	0.00
BATCH SIZE	0.00

RECLAMATION ACTION .. COLLECT-REHYDRATE

*** WASTE ITEM NO. 2 DATA SHEETS

STATE SOLID
DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES SHEET OR STRIP
ELEMENTS PRESENT ..

COMPOSITION CELLULOSE	
GENERATION DATA ...	QUANTITY (LBS)
EXPT. TOTAL	1.00
DAILY RATE	0.00
BATCH SIZE	0.02

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (B)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 2CARDIOVASCULAR
**** WASTE SOURCE NO. 7 USE OF A LBNP DEVICE TO PREVENT C.V. DEC
ONDITIONING

***** WASTE ITEM NO. 3 SPIROMETER
STATE SOLID
DENSITY 68.60 LBS/CU. FT.
ATTRIBUTES PLASTIC TUBE
ELEMENTS PRESENT ..
COMPOSITION COPOLYVINYL,CHLORIDE,ACETATE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 45.00
DAILY RATE 0.00
BATCH SIZE 0.09
RECLAMATION ACTION .. CAN BE STERILIZED

***** WASTE ITEM NO. - 4 INSTRUMENTATION
STATE SOLID
DENSITY 166.00 LBS/CU. FT.
ATTRIBUTES METAL,GLASS
ELEMENTS PRESENT ..
COMPOSITION SI O2 FEC
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 5.00
DAILY RATE 0.00
BATCH SIZE 0.08
RECLAMATION ACTION .. REPAIR

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (B)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 2CARDIOVASCULAR

**** WASTE SOURCE NO. 8 USE OF AN ON-BOARD CENTRIFUGE TO PREVENT
C.V. DECONDITIONING

DOCUMENT NO.

REMARKS (1) FOR OPERATIONAL DESCRIPTION SEE DOCUMENT
NO. A-3.5.1.2.7

***** WASTE ITEM NO. 1 MOVIE FILM

STATE SOLID

DENSITY 83.00 LBS/CU. FT.

ATTRIBUTES PLASTIC

ELEMENTS PRESENT ..

COMPOSITION ACLAR SILVER EMULSION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 4.50

DAILY RATE 0.01

BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 CONTACT PASTE

STATE SEMI SOLID

DENSITY 53.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION KCL

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.25

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. COLLECT-REHYDRATE

***** WASTE ITEM NO. 3 SPIROMETER MOUTHPIECE

STATE SOLID

DENSITY 68.60 LBS/CU. FT.

ATTRIBUTES PLASTIC TUBES

ELEMENTS PRESENT ..

COMPOSITION COPOLYVINYL,CHLORIDE,ACETATE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 45.00

DAILY RATE 0.12

BATCH SIZE 0.12

RECLAMATION ACTION .. CAN BE WASH/STERILIZED

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (B)

GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 2CARDIOVASCULAR

*** WASTE SOURCE NO. 8 USE OF AN ON-BOARD CENTRIFUGE TO PREVENT
C.V. DECONDITIONING

***** WASTE ITEM NO. 4 INSTRUMENTATION

STATE SOLID

DENSITY 166.00 LBS/CU. FT.

ATTRIBUTES GLASS,METAL

ELEMENTS PRESENT .. SI,O2,FE,C

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 10.00

DAILY RATE 0.03

BATCH SIZE 0.03

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 5 DATA SHEETS

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES SHEETS

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.00

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (B)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 2 CARDIOVASCULAR

*** WASTE SOURCE NO. 9 USE OF OCCLUSIVE CUFFS TO PREVENT C.V. D
ECCNDITIONING

DOCUMENT NO. 3.5.1.2.9

REMARKS (1) FOR OPERATIONAL DESCRIPTION SEE DOCUMENT
NO. A-3.5.1.2.7

*** WASTE ITEM NO. 1 MOVIE FILM

STATE SOLID

DENSITY 83.00 LBS/CU. FT.

ATTRIBUTES PLASTIC

ELEMENTS PRESENT ..

COMPOSITION ACLAR, SILVER, EMULSION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 4.50

DAILY RATE 0.01

BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

*** WASTE ITEM NO. 2 CONTACT PASTE

STATE SEMI SOLID

DENSITY 53.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION K CL

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.25

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. COLLECT-REHYDRATE

*** WASTE ITEM NO. 3 SPIROMETER MOUTHPIECE

STATE SOLID

DENSITY 68.60 LBS/CU. FT.

ATTRIBUTES PLASTIC TUBES

ELEMENTS PRESENT ..

COMPOSITION COPOLYVINYL CHLORIDE ACETATE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 45.00

DAILY RATE 0.12

BATCH SIZE 0.12

RECLAMATION ACTION .. CAN BE WASH/STERILIZED

** MANNED SPACECRAFT WASTE GENERATION DATA **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (B)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 2CARDIOVASCULAR
*** WASTE SOURCE NO. 9 USE OF OCCLUSIVE CUFFS TO PREVENT C.V. D
ECONDITIONING

***** WASTE ITEM NO. 4 INSTRUMENTATION
STATE SOLID
DENSITY 270.00 LBS/CU. FT.
ATTRIBUTES GLASS,METAL
ELEMENTS PRESENT .. SI -O2 FEC
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 10.00
DAILY RATE 0.03
BATCH SIZE 0.03
RECLAMATION ACTION .. REPAIR

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (B)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 2 CARDIOVASCULAR

*** WASTE SOURCE NO. 10 C.V. RESPONSE TO SHOCK THERAPY

DOCUMENT NO. 3.5.1.2.10

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, REVISION NO.1, SEPTEMBER
1,1969, NASA, OMSF.

***** WASTE ITEM NO. 1 2 MINIATURE SWINE

STATE SOLID

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT .. C,H,O,N

COMPOSITION

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 4.00

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 DATA SHEETS

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES SHEETS

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 0.20

DAILY RATE 0.00

BATCH SIZE 0.10

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 3 CONTACT PASTE

STATE SEMI SOLID

DENSITY 53.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION KCL

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 0.25

DAILY RATE 0.00

BATCH SIZE 0.13

RECLAMATION ACTION .. COLLECT REHYDRATE

** MANNED SPACECRAFT WASTE GENERATION DATA **

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RUN NO.*** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (B)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 2 CARDIOVASCULAR
**** WASTE SOURCE NO. 10 C.V. RESPONSE TO SHOCK THERAPY

***** WASTE ITEM NO. 4 SYRINGE
STATE SOLID
DENSITY 160.00 LBS/CU. FT.
ATTRIBUTES GLASS TUBE
ELEMENTS PRESENT ..
COMPOSITION SI O2
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 3.00
DAILY RATE 0.00
BATCH SIZE 1.50
RECLAMATION ACTION .. WASH STERILIZE

***** WASTE ITEM NO. 5 NEEDLE
STATE SOLID
DENSITY 488.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT .. FE,C
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.10
DAILY RATE 0.00
BATCH SIZE 0.05
RECLAMATION ACTION .. WASH STERILIZE

***** WASTE ITEM NO. 6 GAUZE
STATE SOLID
DENSITY 90.48 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.03
DAILY RATE 0.00
BATCH SIZE 0.15
RECLAMATION ACTION .. N/R

S/C SUBSYSTEM BIOMEDICAL RESEARCH (B)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 2 CARDIOVASCULAR
*** WASTE SOURCE NO. 10 C.V. RESPONSE TO SHOCK THERAPY

*** WASTE ITEM NO. 7 CAPILLARY TUBES
STATE SOLID
DENSITY 160.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT .. SI 02
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.50
DAILY RATE 0.00
BATCH SIZE 0.25
RECLAMATION ACTION .. WASH

*** WASTE ITEM NO. 8 CENTRIFUGE TUBES
STATE SOLID
DENSITY 160.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT .. SI 02
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.50
DAILY RATE 0.00
BATCH SIZE 0.25
RECLAMATION ACTION .. WASH

*** WASTE ITEM NO. 9 LITTER
STATE SOLID
DENSITY 43.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 10.00
DAILY RATE 0.70
BATCH SIZE 0.70
RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (B)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 2CARDIOVASCULAR
*** WASTE SOURCE NO. 10 C.V. RESPONSE TO SHOCK THERAPY

***** WASTE ITEM NO. 10 REACTANT CHEMICALS
STATE SOLID OR LIQUID
DENSITY 70.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION NA2S2O4-NAOH OH KOH-K3FE {CN}6
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.00
DAILY RATE 0.00
BATCH SIZE 0.50
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 11 MOUTHPIECES
STATE SOLID
DENSITY 68.60 LBS/CU. FT.
ATTRIBUTES PLASTIC
ELEMENTS PRESENT ..
COMPOSITION COPOLYVINYL CHLORIDE ACETATE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.25
DAILY RATE 0.00
BATCH SIZE 0.13
RECLAMATION ACTION .. WASH STERILIZE

***** WASTE ITEM NO. 12 URINE
STATE LIQUID
DENSITY 62.40 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION WATER
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 2.00
DAILY RATE 0.14
BATCH SIZE 0.14
RECLAMATION ACTION .. DISTILL

** MANNED SPACECRAFT WASTE GENERATION DATA **

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RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (B)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 2 CARDIOVASCULAR
*** WASTE SOURCE NO. 10 C.V. RESPONSE TO SHOCK THERAPY

*** WASTE ITEM NO. 13 FECES
STATE SEMI SOLID
DENSITY 62.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION PROTEIN
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 3.00
DAILY RATE 0.21
BATCH SIZE 0.21
RECLAMATION ACTION .. N/R

*** WASTE ITEM NO. 14 WASTE WATER
STATE LIQUID
DENSITY 62.40 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION WATER
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.40
DAILY RATE 0.02
BATCH SIZE 0.02
RECLAMATION ACTION .. DISTILL

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (B)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 2 CARDIOVASCULAR

**** WASTE SOURCE NO. 11 SENSITIVITY OF THE CAROTID SINUS-ARTERIA
L PRESSURE CONTROL LOOP
DOCUMENT NO. 3.5.1.2.11

REFERENCE NO. 1 .. MEDICAL ASPECTS OF AN ORBITING RESEARCH
LABORATORY, NASA SPACE MEDICINE ADVISORY
GROUP, NASA REPORT NO. SP-86, 1966.

REFERENCE NO. 2 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, REVISION NO. 1, SEPTEMBER
1, 1969, NASA OMSF.

**** ** WASTE ITEM NO. 1 ECG DATA TAPE
STATE SOLID
DENSITY 72.00 LBS/CU. FT.
ATTRIBUTES PAPER STRIP
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.30
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

**** ** WASTE ITEM NO. 2 MOUTHPIECE
STATE SOLID
DENSITY 68.60 LBS/CU. FT.
ATTRIBUTES PLASTIC TUBE
ELEMENTS PRESENT ..
COMPOSITION COPOLYVINYL CHLORIDE ACETATE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 3.00
DAILY RATE 0.00
BATCH SIZE 0.05
RECLAMATION ACTION .. WASH

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RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (B)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 2 CARDIOVASCULAR

*** WASTE SOURCE NO. 11 SENSITIVITY OF THE CAROTID SINUS-ARTERIA
L PRESSURE CONTROL LOOP

***** WASTE ITEM NO. 3 CONTACT PASTE

STATE SEMI-SOLID

DENSITY 53.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION KCL

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 0.25

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. COLLECT REHYDRATE

***** WASTE ITEM NO. 4 INSTRUMENTS

STATE SOLID

DENSITY 80.00 LBS/CU. FT.

ATTRIBUTES METAL MATERIAL

ELEMENTS PRESENT .. FE,C

COMPOSITION NYLON-TEFLON

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 1.50

DAILY RATE 0.00

BATCH SIZE 0.03

RECLAMATION ACTION .. REPAIR

** MANNED SPACECRAFT WASTE GENERATION DATA **

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RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (B)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 2CARDIOVASCULAR

**** WASTE SOURCE NO. 12 PERIPHERAL ARTERIAL REACTIVITY

DOCUMENT NO. 3.5.1.2.12

***** WASTE ITEM NO. 1 DATA SHEETS

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES PAPER SHEETS

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 0.50

DAILY RATE 0.00

BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 COLOR FILM

STATE SOLID

DENSITY 83.00 LBS/CU. FT.

ATTRIBUTES PLASTIC STRIPS

ELEMENTS PRESENT ..

COMPOSITION ACLAR-SILVER IODIDE

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 1.00

DAILY RATE 0.00

BATCH SIZE 0.03

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 3 INSTRUMENTS

STATE SOLID

DENSITY 166.00 LBS/CU. FT.

ATTRIBUTES METAL-PLASTIC-GLASS

ELEMENTS PRESENT ..

COMPOSITION SI O2 FEC (CH2 CH2)

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 5.00

DAILY RATE 0.00

BATCH SIZE 0.13

RECLAMATION ACTION .. REPAIR

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (B)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 2 CARDIOVASCULAR

*** WASTE SOURCE NO. 13 CHANGES IN BLOOD VOLUME AND DISTRIBUTION

DOCUMENT NO. 3.5.1.2.13

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, REVISION NO. 1, SEPTEMBER
1, 1969, NASA OMSF.

*** WASTE ITEM NO. 1 EQUIPMENT

STATE SOLID

DENSITY 260.00 LBS/CU. FT.

ATTRIBUTES VARIED

ELEMENTS PRESENT ..

COMPOSITION VARIED

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

10.00

DAILY RATE

0.00

BATCH SIZE

0.15

RECLAMATION ACTION .. REPAIR

*** WASTE ITEM NO. 2 R/A TRACERS

STATE LIQUID

DENSITY 80.00 LBS/CU. FT.

ATTRIBUTES CHEMICALS

ELEMENTS PRESENT ..

COMPOSITION DFP32 CR31

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

1.00

DAILY RATE

0.00

BATCH SIZE

0.01

RECLAMATION ACTION .. N/R

*** WASTE ITEM NO. 3 SYRINGE

STATE SOLID

DENSITY 160.00 LBS/CU. FT.

ATTRIBUTES GLASS

ELEMENTS PRESENT .. S1,02

COMPOSITION

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

4.00

DAILY RATE

0.00

BATCH SIZE

0.06

RECLAMATION ACTION .. WASH

** MANNED SPACECRAFT WASTE GENERATION DATA **

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RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (B)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 2 CARDIOVASCULAR
*** WASTE SOURCE NO. 13 CHANGES IN BLOOD VOLUME AND DISTRIBUTION

***** WASTE ITEM NO. 4 NEEDLES
STATE SOLID
DENSITY 488.00 LBS/CU. FT.
ATTRIBUTES STEEL
ELEMENTS PRESENT .. FE,C
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.20
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 5 GAUZE
STATE SOLID
DENSITY 90.48 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.40
DAILY RATE 0.00
BATCH SIZE 0.01
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 6 BLOOD
STATE LIQUID
DENSITY 65.52 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION PROTEIN
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.00
DAILY RATE 0.00
BATCH SIZE 0.01
RECLAMATION ACTION .. N/R

S/C SUBSYSTEM BIOMEDICAL RESEARCH (B)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 2 CARDIOVASCULAR
*** WASTE SOURCE NO. 13 CHANGES IN BLOOD VOLUME AND DISTRIBUTION
*** *****

*** WASTE ITEM NO. 7 URINE
STATE LIQUID
DENSITY 64.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION WATER
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 40.00
DAILY RATE 0.10
BATCH SIZE 0.10
RECLAMATION ACTION .. DISTILL

*** WASTE ITEM NO. 8 CHEM. FOR MICRO KJELDAHL-FOLIN CREATININE
STATE LIQUID
DENSITY 90.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION H2SO4-NH4OH 2(K1)2HG12 KOH PICRATE-OXALA
TE AL6SI2O13 ETC.
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 7.00
DAILY RATE 0.00
BATCH SIZE 0.12
RECLAMATION ACTION .. N/R

*** WASTE ITEM NO. 9 CAPILLARY TUBES
STATE SOLID
DENSITY 160.00 LBS/CU. FT.
ATTRIBUTES GLASS
ELEMENTS PRESENT .. SI, O2
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.50
DAILY RATE 0.00
BATCH SIZE 0.01
RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (B)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 2 CARDIOVASCULAR

*** WASTE SOURCE NO. 14 CAROTID BARORECEPTOR ELECTRICAL ACTIVITY
IN PRIMATES

DOCUMENT NO.

REMARKS { 1 } FOR OPERATIONAL DESCRIPTION SEE DOCUMENT
NO. A-3.5.1.2.10

*** ** WASTE ITEM NO. 1 FOOD PARTICLES

STATE SOLID

DENSITY 95.00 LBS/CU. FT.

ATTRIBUTES AEROSOL

ELEMENTS PRESENT .. C,H,O,N

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 10.00

DAILY RATE 0.04

BATCH SIZE 0.04

RECLAMATION ACTION .. N/R

*** ** WASTE ITEM NO. 2 R/A ISOTOPES

STATE LIQUID

DENSITY 64.00 LBS/CU. FT.

ATTRIBUTES CHEMICALS

ELEMENTS PRESENT ..

COMPOSITION DFP32,CR31

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.75

DAILY RATE 0.00

BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

*** ** WASTE ITEM NO. 3 WASTE WATER

STATE LIQUID

DENSITY 62.40 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION WATER

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 4.00

DAILY RATE 0.02

BATCH SIZE 0.02

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM BIOMEDICAL RESEARCH (B)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 2 CARDIOVASCULAR
*** WASTE SOURCE NO. 14 CAROTID BARORECEPTOR ELECTRICAL ACTIVITY
IN PRIMATES

** *** WASTE ITEM NO. 4 DATA SHEETS
STATE SOLID
DENSITY 72.00 LBS/CU. FT.
ATTRIBUTES PAPER
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.50
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION ..

*** WASTE ITEM NO. 5 NEEDLE
STATE SOLID
DENSITY 498.00 LBS/CU. FT.
ATTRIBUTES STEEL TUBE
ELEMENTS PRESENT .. FE,C
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.10
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. WASH

*** WASTE ITEM NO. 6 SYRINGE
STATE SOLID
DENSITY 160.00 LBS/CU. FT.
ATTRIBUTES GLASS TUBE
ELEMENTS PRESENT .. SI,O2
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 3.00
DAILY RATE 0.00
BATCH SIZE 0.03
RECLAMATION ACTION .. WASH

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RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (B)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 2 CARDIOVASCULAR
**** WASTE SOURCE NO. 14 CAROTID BARORECEPTOR ELECTRICAL ACTIVITY
IN PRIMATES

***** WASTE ITEM NO. 7 CAPILLARY TUBES
STATE SOLID
DENSITY 160.00 LBS/CU. FT.
ATTRIBUTES GLASS TUBE
ELEMENTS PRESENT .. SI, O2
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.50
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 8 FILM
STATE SOLID
DENSITY 83.00 LBS/CU. FT.
ATTRIBUTES PLASTIC STRIP
ELEMENTS PRESENT ..
COMPOSITION ACLAR-SILVER
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.00
DAILY RATE 0.00
BATCH SIZE 0.01
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 9 BLOOD
STATE LIQUID
DENSITY 65.52 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION PROTEIN
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.00
DAILY RATE 0.00
BATCH SIZE 0.01
RECLAMATION ACTION .. N/R

S/C SUBSYSTEM BIOMEDICAL RESEARCH (B)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 2CARDIOVASCULAR
*** WASTE SOURCE NO. 14 CAROTID BARORECEPTOR ELECTRICAL ACTIVITY
IN PRIMATES

*** WASTE ITEM NO. 10 CENTRIFUGE TUBES
STATE SOLID
DENSITY 160.00 LBS/CU. FT.
ATTRIBUTES GLASS TUBE
ELEMENTS PRESENT .. SI, O2
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.50
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. WASH

*** WASTE ITEM NO. 11 GAUZE
STATE SOLID
DENSITY 90.48 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.30
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

*** WASTE ITEM NO. 12 LITTER
STATE SOLID
DENSITY 43.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 20.00
DAILY RATE 0.08
BATCH SIZE 0.08
RECLAMATION ACTION .. N/R

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RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (B)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 2CARDIOVASCULAR
**** WASTE SOURCE NO. 14 CARDIOTID BARORECEPTOR ELECTRICAL ACTIVITY
IN PRIMATES

***** WASTE ITEM NO. 13 2 MONKEYS
STATE SOLID
DENSITY 0.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 4.40
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 14 URINE
STATE LIQUID
DENSITY 63.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION WATER
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 10.00
DAILY RATE 0.04
BATCH SIZE 0.04
RECLAMATION ACTION .. DISTILL

***** WASTE ITEM NO. 15 FECES
STATE SEMI-SOLID
DENSITY 87.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT .. C,H,O,N
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 28.00
DAILY RATE 0.10
BATCH SIZE 0.10
RECLAMATION ACTION .. N/R

S/C SUBSYSTEM BIOMEDICAL RESEARCH (C)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 3 RESPIRATION

ASSOCIATED FPE NUMBER ... 5.13
S/C AREAS MEDICAL LABOPATOPY

*** WASTE SOURCE NO. 1 PULMONARY MECHANICS

DOCUMENT NO. 3.5.1.3.1

REFERENCE NO. 1 .. REPORT ON THE OPTIMIZATION OF THE MANNED
ORBITAL RESEARCH LABORATORY (MORL) SYST
EM CONCEPT, PHASE IIA, VOLUMES XXII, XXIII, D
UGLAS REPORT NOS. SM46083 AND SM46084, S

REFERENCE NO. 2 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, REVISION NO. 1, SEPTEMBE
R 1, 1969, NASA OMSF.

REFERENCE NO. 3 .. IMBLMS

***** WASTE ITEM NO. 1 CHEMICALS FOR PCO2 AND PO2

STATE SOLID
DENSITY 80.00 LBS/CU. FT.
ATTRIBUTES LIQUIDS, GASES
ELEMENTS PRESENT ..
COMPOSITION NAHCO3, PO4 - KCL , REFERENCE GASES
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL , 5.00
DAILY RATE 0.00
BATCH SIZE 0.08
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 DATA SHEETS

STATE SOLID
DENSITY 72.00 LBS/CU. FT.
ATTRIBUTES PAPER, SHEET
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.50
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (C)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 3 RESPIRATION

*** WASTE SOURCE NO. 1 PULMONARY MECHANICS

*** WASTE ITEM NO. 3 SPIROMETER MOUTH-PIECE

STATE SOLID

DENSITY 68.60 LBS/CU. FT.

ATTRIBUTES PLASTIC, TUBE

ELEMENTS PRESENT ..

COMPOSITION COPOLYVINYL CHLORIDE, ACETATE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 12.00

DAILY RATE 0.00

BATCH SIZE 0.20

RECLAMATION ACTION .. WASH, STERILIZE

11/31/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (C)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 3 RESPIRATION

**** WASTE SOURCE NO. 2 RESPIRATORY CONTROL

DOCUMENT NO. 3.5.1.3.2

REMARKS (1) FOR OPERATIONAL DESCRIPTION SEE DOCUMENT
NO. A- 3.5.1.3.1

**** * WASTE ITEM NO. 1 BLOOD

STATE LIQUID

DENSITY 65.52 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION PROTEIN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.10

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 TEST TUBE

STATE SOLID

DENSITY 160.00 LBS/CU. FT.

ATTRIBUTES GLASS, TUBE

ELEMENTS PRESENT ..

COMPOSITION SI O2

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 3.00

DAILY RATE 0.00

BATCH SIZE 0.06

RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 3 INSTRUMENT

STATE SOLID

DENSITY 200.00 LBS/CU. FT.

ATTRIBUTES VARIED

ELEMENTS PRESENT ..

COMPOSITION VARIED

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 5.00

DAILY RATE 0.00

BATCH SIZE 0.10

RECLAMATION ACTION .. REPAIR

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO.- ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (C)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 3 RESPIRATION

**** WASTE SOURCE NO. 3 BLOOD AND VENTILATORY GAS EXCHANGE

DOCUMENT NO. 3.5.1.3.3

REMARKS (1) FOR OPERATIONAL DESCRIPTION SEE DOCUMENT
NO. A- 3.5.1.3.1

***** WASTE ITEM NO. 1 SPIROMETER MOUTHPIECE

STATE SOLID

DENSITY 68.60 LBS/CU. FT.

ATTRIBUTES PLASTIC, TUBE

ELEMENTS PRESENT ..

COMPOSITION COPOLYVINYL CHLORIDE, ACETATE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.50

DAILY RATE 0.00

BATCH SIZE 0.01

RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 2 CHEMICALS FOR BLOOD GASES, EXPIRED GASES

STATE SOLID

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES LIQUID, GASES

ELEMENTS PRESENT ..

COMPOSITION REFERENCE GASES NAHCO3-PO4-KCL NA2S2O4 N
AOH-K3FE(CN)3 ETC.

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.00

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION ..

***** WASTE ITEM NO. 3 DATA SHEETS

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES PAPER, SHEETS

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.20

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (C)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 3 RESPIRATION

*** WASTE SOURCE NO. 3 BLOOD AND VENTILATORY GAS EXCHANGE

***** WASTE ITEM NO. 4 NEEDLE

STATE SOLID

DENSITY 488.00 LBS/CU. FT.

ATTRIBUTES STEEL

ELEMENTS PRESENT ..

COMPOSITION FEC

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

0.10

DAILY RATE

0.00

BATCH SIZE

0.00

RECLAMATION ACTION ..

***** WASTE ITEM NO. 5 SYRINGE

STATE SOLID

DENSITY 160.00 LBS/CU. FT.

ATTRIBUTES GLASS TUBE

ELEMENTS PRESENT ..

COMPOSITION SIC2

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

4.00

DAILY RATE

0.00

BATCH SIZE

0.04

RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 6 GAUZE

STATE SOLID

DENSITY 90.48 LBS/CU. FT.

ATTRIBUTES CLOTHE

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

0.30

DAILY RATE

0.00

BATCH SIZE

0.00

RECLAMATION ACTION .. N/R

** MANDED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (C)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 3 RESPIRATION
*** WASTE SOURCE NO. 3 BLOOD AND VENTILATORY GAS EXCHANGE

***** WASTE ITEM NO. 7 BLOOD
STATE LIQUID
DENSITY 65.52 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION PROTEIN
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL - 0.10
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 8 TEST TUBE
STATE SOLID
DENSITY 160.00 LBS/CU. FT.
ATTRIBUTES GLASS, TUBE
ELEMENTS PRESENT ..
COMPOSITION SiO2
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 3.00
DAILY RATE 0.00
BATCH SIZE 0.03
RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 9 INSTRUMENT
STATE SOLID
DENSITY 200.00 LBS/CU. FT.
ATTRIBUTES VARIED
ELEMENTS PRESENT ..
COMPOSITION VARIED
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 5.00
DAILY RATE 0.00
BATCH SIZE 0.05
RECLAMATION ACTION .. REPAIR

S/C SUBSYSTEM BIOMEDICAL RESEARCH (C)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 3 RESPIRATION

*** WASTE SOURCE NO. 4 LUNG CLEANING IN RATS

DOCUMENT NO. 3.5.1.3.4

REFERENCE NO. 1 .. REPORT ON THE OPTIMIZATION OF THE MANNED
ORBITAL RESEARCH LABORATORY(MORL)SYSTEM
CONCEPT, PHASE IIA,VOLUMES XXII,XXIII.D
GUGLAS REPORT NOS.SM46083 AND SM46084 SE

REFERENCE NO. 2 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, REVISION NO. 1, SEPTEMBE
R 1, 1969, NASA OMSF.

*** WASTE ITEM NO. 1 6 RATS,ALBINO

STATE SOLID

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES CARCASS

ELEMENTS PRESENT ..

COMPOSITION PROTEINS, MINERAL

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 4.00

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

*** WASTE ITEM NO. 2 TISSUE FIXATIVES

STATE LIQUID

DENSITY 112.00 LBS/CU. FT.

ATTRIBUTES CHEMICAL

ELEMENTS PRESENT ..

COMPOSITION WAXES

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.00

DAILY RATE 0.07

BATCH SIZE 0.07

RECLAMATION ACTION ..

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (C)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 3 RESPIRATION

*** WASTE SOURCE NO. 4 LUNG CLEANING IN RATS

*** WASTE ITEM NO. 3 STAINS

STATE LIQUID

DENSITY 64.00 LBS/CU. FT.

ATTRIBUTES DYES

ELEMENTS PRESENT ..

COMPOSITION C16H14O6, 3H2O, C20H8BR4O5

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.50

DAILY RATE 0.04

BATCH SIZE 0.04

RECLAMATION ACTION .. COLLECT

*** WASTE ITEM NO. 4 FOOD PARTICLES

STATE SOLID

DENSITY 95.00 LBS/CU. FT.

ATTRIBUTES AEROSOL

ELEMENTS PRESENT .. C, H, O, N

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.15

DAILY RATE 0.01

BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

*** WASTE ITEM NO. 5 WASTE WATER

STATE LIQUID

DENSITY 62.40 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION WATER

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.50

DAILY RATE 0.04

BATCH SIZE 0.04

RECLAMATION ACTION ..

S/C SUBSYSTEM BIOMEDICAL RESEARCH (C)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 3 RESPIRATION

*** WASTE SOURCE NO. 4 LUNG CLEANING IN RATS

***** WASTE ITEM NO. 6 URINE

STATE LIQUID

DENSITY 63.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION WATER

GENERATION DATA ... - QUANTITY (LBS)

EXPT. TOTAL 0.01

DAILY RATE 0.01

BATCH SIZE 0.01

RECLAMATION ACTION .. DISTILL

***** WASTE ITEM NO. 7 FECES

STATE SEMI-SOLID

DENSITY 87.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT .. C,H,D,N

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.03

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 8 COLOR FILM

STATE SOLID

DENSITY 83.00 LBS/CU. FT.

ATTRIBUTES PLASTIC, STRIP

ELEMENTS PRESENT ..

COMPOSITION ACLAR, AGL

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.10

DAILY RATE 0.01

BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

11/30/70

RUN NO.~ ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (C)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 3 RESPIRATION

**** WASTE SOURCE NO. 4 LUNG CLEANING IN RATS

***** WASTE ITEM NO. 9 DATA SHEETS

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES SHEETS

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.10

DAILY RATE 0.01

BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 10 GLASS SLIDES

STATE SOLID

DENSITY 160.00 LBS/CU. FT.

ATTRIBUTES FLAT

ELEMENTS PRESENT ..

COMPOSITION SIO2

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.20

DAILY RATE 0.01

BATCH SIZE 0.01

RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 11 LITTER

STATE SOLID

DENSITY 43.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 3.50

DAILY RATE 0.23

BATCH SIZE 0.23

RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (C)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 3 RESPIRATION

**** WASTE SOURCE NO. 5 INDUCED PULMONARY INFECTION IN MICE

DOCUMENT NO. 3.5.1.3.5

REMARKS (1) FOR OPERATIONAL DESCRIPTION SEE DOCUMENT
NO. A- 3.5.1.3.4

***** WASTE ITEM NO. 1 6 MICE, ALBINO

STATE SOLID

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES CARCASS

ELEMENTS PRESENT ..

COMPOSITION PROTEINS, MINERAL

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.30

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 TISSUE FIXATIVES

STATE LIQUID

DENSITY 112.00 LBS/CU. FT.

ATTRIBUTES CHEMICALS

ELEMENTS PRESENT ..

COMPOSITION WAXES

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.10

DAILY RATE 0.01

BATCH SIZE 0.01

RECLAMATION ACTION ..

***** WASTE ITEM NO. 3 STAINS

STATE LIQUID

DENSITY 64.00 LBS/CU. FT.

ATTRIBUTES DYES

ELEMENTS PRESENT ..

COMPOSITION C16H14O6, 3H2O, C20H8BR4O5

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.05

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. COLLECT

** MARKED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO.~ ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (C)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 3 RESPIRATION

*** WASTE SOURCE NO. 5 INDUCED PULMONARY INFECTION IN MICE

***** WASTE ITEM NO. 4 FOOD PARTICLES

STATE SOLID

DENSITY 95.00 LBS/CU. FT.

ATTRIBUTES AEROSOL

ELEMENTS PRESENT .. C,H,O,N

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.01

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 5 WASTE WATER

STATE LIQUID

DENSITY 62.40 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION WATER

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.05

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION ..

***** WASTE ITEM NO. 6 URINE

STATE LIQUID

DENSITY 63.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION WATER

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.00

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. DISTILL

S/C SUBSYSTEM BIOMEDICAL RESEARCH (C)
GROUP KEY 345.1

** EQUIPMENT/EXPERIMENT NO. 3 RESPIRATION
*** WASTE SOURCE NO. 5 INDUCED PULMONARY INFECTION IN MICE

***** WASTE ITEM NO. 7 FECES
STATE SEMI-SOLID
DENSITY 87.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT .. C, H, O, N
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.03
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. N/P

***** WASTE ITEM NO. 8 COLOR FILM
STATE SOLID
DENSITY 83.00 LBS/CU. FT.
ATTRIBUTES PLASTIC, STRIP
ELEMENTS PRESENT ..
COMPOSITION ACLAR, AGI
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.10
DAILY RATE 0.01
BATCH SIZE 0.01
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 9 DATA SHEETS
STATE SOLID
DENSITY 72.00 LBS/CU. FT.
ATTRIBUTES SHEETS
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.10
DAILY RATE 0.01
BATCH SIZE 0.01
RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (C)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 3 RESPIRATION
*** WASTE SOURCE NO. 5 INDUCED PULMONARY INFECTION IN MICE

**** WASTE ITEM NO. 10 GLASS SLIDES
STATE SOLID
DENSITY 160.00 LBS/CU. FT.
ATTRIBUTES FLAT
ELEMENTS PRESENT ..
COMPOSITION SIQ2
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.20
DAILY RATE 0.01
BATCH SIZE 0.01
RECLAMATION ACTION .. WASH

**** WASTE ITEM NO. 11 LITTER
STATE SOLID
DENSITY 43.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 3.50
DAILY RATE 0.23
BATCH SIZE 0.23
RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 12 BACTERIOLOGY
STATE SEMI-SOLID
DENSITY 65.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION AGAR
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 3.00
DAILY RATE 0.21
BATCH SIZE 0.21
RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (C)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 3 RESPIRATION

*** WASTE SOURCE NO. 5 INDUCED PULMONARY INFECTION IN MICE

***** WASTE ITEM NO. 13 PETRI PLATES

STATE SOLID

DENSITY 68.60 LBS/CU. FT.

ATTRIBUTES PLASTIC

ELEMENTS PRESENT ..

COMPOSITION COPOLYVINYL, ACETATE CL.

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.50

DAILY RATE 0.03

BATCH SIZE 0.03

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 14 LOGPS

STATE SOLID

DENSITY 160.00 LBS/CU. FT.

ATTRIBUTES ROD

ELEMENTS PRESENT ..

COMPOSITION SiO2

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.00

DAILY RATE 0.07

BATCH SIZE 0.07

RECLAMATION ACTION .. WASH STERILIZE

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (C)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 3 RESPIRATION

*** ~~~~~

**** WASTE SOURCE NO. 6 RECOVERY RATE FROM NON-INFECTIOUS TRAUMA
IN RATS

DOCUMENT NO. 3.5.1.3.6

REMARKS (1) FOR OPERATIONAL DESCRIPTION SEE DOCUMENT
NO. A- 3 5.1.3.4

**** * WASTE ITEM NO. 1 6 RATS, ALBINO

STATE SOLID

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES CARCASS

ELEMENTS PRESENT ..

COMPOSITION PROTEINS, MINERAL

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 4.00

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

**** * WASTE ITEM NO. 2 TISSUE FIXATIVES

STATE LIQUID

DENSITY 112.00 LBS/CU. FT.

ATTRIBUTES CHEMICAL

ELEMENTS PRESENT ..

COMPOSITION WAXES

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.00

DAILY RATE 0.07

BATCH SIZE 0.07

RECLAMATION ACTION ..

**** * WASTE ITEM NO. 3 STAINS

STATE LIQUID

DENSITY 64.00 LBS/CU. FT.

ATTRIBUTES DYES

ELEMENTS PRESENT ..

COMPOSITION C16H14O6, 3H2O, C20H8BR4C5

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.50

DAILY RATE 0.04

BATCH SIZE 0.04

RECLAMATION ACTION .. COLLECT

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (C)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 3 RESPIRATION
*** WASTE SOURCE NO. 6 RECOVERY RATE FROM NON-INFECTIOUS TRAUMA
IN RATS

***** WASTE ITEM NO. 4 FOOD PARTICLES
STATE SOLID
DENSITY 95.00 LBS/CU. FT.
ATTRIBUTES AEROSOL
ELEMENTS PRESENT .. C,H,C,N
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.15
DAILY RATE 0.01
BATCH SIZE 0.01
RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 5 WASTE WATER
STATE LIQUID
DENSITY 62.40 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION WATER
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.50
DAILY RATE 0.04
BATCH SIZE 0.04
RECLAMATION ACTION ..

***** WASTE ITEM NO. 6 URINE
STATE LIQUID
DENSITY 63.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION WATER
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.01
DAILY RATE 0.01
BATCH SIZE 0.01
RECLAMATION ACTION .. DISTILL

11/30/70

RUN NO. 2

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (C)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 3 RESPIRATION
*** WASTE SOURCE NO. 6 RECOVERY RATE FROM NON-INFECTIOUS TRAUMA
IN RATS

*** WASTE ITEM NO. 7 FECES
STATE SEMI-SOLID
DENSITY 87.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT .. C,H,O,N
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.03
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

*** WASTE ITEM NO. 8 COLOR FILM
STATE SOLID
DENSITY 83.00 LBS/CU. FT.
ATTRIBUTES PLASTIC, STRIP
ELEMENTS PRESENT ..
COMPOSITION ACLAR, AGI
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.10
DAILY RATE 0.01
BATCH SIZE 0.01
RECLAMATION ACTION .. N/R

*** WASTE ITEM NO. 9 DATA SHEETS
STATE SOLID
DENSITY 72.00 LBS/CU. FT.
ATTRIBUTES SHEETS
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.10
DAILY RATE 0.01
BATCH SIZE 0.01
RECLAMATION ACTION .. N/R

S/C SUBSYSTEM BIOMEDICAL RESEARCH (C)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 3 RESPIRATION
*** WASTE SOURCE NO. 6 RECOVERY RATE FROM NON-INFECTIOUS TRAUMA
IN RATS

***** WASTE ITEM NO. 10 GLASS SLIDES
STATE SOLID
DENSITY 160.00 LBS/CU. FT.
ATTRIBUTES FLAT
ELEMENTS PRESENT ..
COMPOSITION SIC2
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.20
DAILY RATE 0.01
BATCH SIZE 0.01
RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 11 LITTER
STATE SOLID
DENSITY 43.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 3.50
DAILY RATE 0.23
BATCH SIZE 0.23
RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (D)

GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 4 GASTROINTESTINAL

ASSOCIATED FPE NUMBER ... 5.13

S/C AREAS MEDICAL LABORATORY

*** WASTE SOURCE NO. 1 G.I. MOTILITY AND PH

DOCUMENT NO. 3.5.1.4.1

REFERENCE NO. 1 .. NASA EXPERIMENT DESCRIPTIONS FOR EXTENDED APOLLO EARTH-ORBIT FLIGHTS, NASA HEADQUARTERS, WASHINGTON, D.C., MARCH 1965.

REFERENCE NO. 2 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH ORBITAL MISSIONS, REVISION NO. 1, SEPTEMBER 1, 1969, NASA CMSF.

*** WASTE ITEM NO. 1 RUBBER BALLOON

STATE SOLID

DENSITY 57.00 LBS/CU. FT.

ATTRIBUTES SHEET

ELEMENTS PRESENT .. (C5H8)X

COMPOSITION

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

10.00

DAILY RATE

0.00

BATCH SIZE

0.10

RECLAMATION ACTION .. N/R

*** WASTE ITEM NO. 2 STOMACH TUBES

STATE SOLID

DENSITY 57.00 LBS/CU. FT.

ATTRIBUTES TUBE

ELEMENTS PRESENT .. (C5H8)X

COMPOSITION

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

10.00

DAILY RATE

0.00

BATCH SIZE

0.10

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM BIOMEDICAL RESEARCH (D)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 4GASTROINTESTINAL

**** WASTE SOURCE NO. 2 INTESTINAL ABSORPTION

DOCUMENT NO. 3.5.1.4.2

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, REVISION NO.1, SEPTEMBER 1
1969, NASA OMSF.

**** * WASTE ITEM NO. 1 RADIOACTIVE FOOD PARTICLES

STATE SOLID

DENSITY 60.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION CHCN

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 26.00

DAILY RATE 0.00

BATCH SIZE 0.26

RECLAMATION ACTION .. N/R

**** * WASTE ITEM NO. 2 R/A URINE

STATE LIQUID

DENSITY 62.40 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION WATER

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 600.00

DAILY RATE 0.00

BATCH SIZE 6.00

RECLAMATION ACTION .. N/R

**** * WASTE ITEM NO. 3 R/A FECES

STATE SEMI-SOLID

DENSITY 83.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION CHCN+

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 150.00

DAILY RATE 0.00

BATCH SIZE 1.50

RECLAMATION ACTION .. N/R

11/30/70

RUN NO.- ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (D)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 4GASTROINTESTINAL
*** WASTE SOURCE NO. 2 INTESTINAL ABSORPTION

***** WASTE ITEM NO. 4 FOOD PARTICLES
STATE SOLID
DENSITY 60.00 LBS/CU. FT.
ATTRIBUTES AEROSOL
ELEMENTS PRESENT ..
COMPOSITION CHON
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 52.00
DAILY RATE 0.00
BATCH SIZE 0.26
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 5 URINE
STATE LIQUID
DENSITY 62.40 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION WATER
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 800.00
DAILY RATE 0.00
BATCH SIZE 4.00
RECLAMATION ACTION .. DISTILL IF DESIRED

***** WASTE ITEM NO. 6 FECES
STATE SEMI-SOLID
DENSITY 83.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION CHON+
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 200.00
DAILY RATE 0.00
BATCH SIZE 1.00
RECLAMATION ACTION .. N/R

S/C SUBSYSTEM BIOMEDICAL RESEARCH (D)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 4GASTROINTESTINAL

*** WASTE SOURCE NO. 3 INDICES OF RENAL FUNCTION

DOCUMENT NO. 3.5.1.4.3

REFERENCE NO. 1 .. NASA EXPERIMENT DESCRIPTIONS FOR EXTENDED EARTH-ORBIT FLIGHTS, NASA HEADQUARTERS, WASHINGTON, D.C., MARCH 1965

REFERENCE NO. 2 .. REPT. ON THE OPTIMIZATION OF MANNED ORBITAL RESEARCH LAB. (MORL) SYSTEM CONCEPT, PHASE IIA, VOL. XXII & XXIII, EXPERIMENT PROG. DOUGLAS REPT. NOS. SM46083 & SM46084, SEPT.

REFERENCE NO. 3 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH ORBITAL MISSIONS, REVISION NO. 1, SEPTEMBER 1, 1964

*** ** WASTE ITEM NO. 1 CHEMICALS FOR CREATININE ANALYSIS

STATE LIQUID, SOLID

DENSITY 70.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT .. NA02

COMPOSITION PICRATE

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 1.00

DAILY RATE 0.00

BATCH SIZE 0.02

RECLAMATION ACTION .. N/R

*** ** WASTE ITEM NO. 2 CHEMICALLY IMPREGNATED PAPER

STATE SOLID

DENSITY 70.00 LBS/CU. FT.

ATTRIBUTES STRIPS

ELEMENTS PRESENT .. VARIED

COMPOSITION

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 0.25

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

1/30/70

RUN NO. ** 2 **

PACF 420

S/C SUBSYSTEM BIOMEDICAL RESEARCH (D)
GROUP KEY 3.5.1

* EQUIPMENT/EXPERIMENT NO. 4 GASTROINTESTINAL
*** WASTE SOURCE NO. 3 INDICES OF RENAL FUNCTION

***** WASTE ITEM NO. 3 BLOOD
STATE LIQUID
DENSITY 65.52 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION CHON+
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.50
DAILY RATE 0.00
BATCH SIZE 0.01
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 4 URINE
STATE LIQUID
DENSITY 63.60 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION WATER
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 7.00
DAILY RATE 0.00
BATCH SIZE 1.40
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 5 SYRINGE
STATE SOLID
DENSITY 160.00 LBS/CU. FT.
ATTRIBUTES GLASS TUBE
ELEMENTS PRESENT .. SIC2
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 4.00
DAILY RATE 0.00
BATCH SIZE 0.08
RECLAMATION ACTION .. WASH,STERILIZE

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (D)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 4GASTROINTESTINAL
*** WASTE SOURCE NO. 3 INDICES OF RENAL FUNCTION

***** WASTE ITEM NO. 6 NEEDLES

STATE SOLID

DENSITY 488.00 LBS/CU. FT.

ATTRIBUTES STEEL TUBE

ELEMENTS PRESENT .. FEC

COMPOSITION

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 1.00

DAILY RATE 0.00

BATCH SIZE 0.02

RECLAMATION ACTION .. WASH,STERILIZE

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (D)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 4 GASTROINTESTINAL

*** WASTE SOURCE NO. 4 RENAL CALCULUS FORMATION IN RATS

DOCUMENT NO. 3.5.1.4.4

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, REVISION NO.1, SEPTEMBER 1
1969, NASA OMSF.

***** WASTE ITEM NO. 1 6 RATS, ALBINO

STATE SOLID

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.00

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 TISSUE FIXATIVES

STATE LIQUID

DENSITY 112.00 LBS/CU. FT.

ATTRIBUTES CHEMICAL

ELEMENTS PRESENT .. K2CR2O7, HGCL2

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.00

DAILY RATE 0.04

BATCH SIZE 0.04

RECLAMATION ACTION ..

***** WASTE ITEM NO. 3 STAINS

STATE LIQUID

DENSITY 64.00 LBS/CU. FT.

ATTRIBUTES DYES

ELEMENTS PRESENT .. C16H14O6, 3H2O, C20H8BR4O5

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.50

DAILY RATE 0.02

BATCH SIZE 0.02

RECLAMATION ACTION .. COLLECT

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (D)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 4GASTROINTESTINAL
*** WASTE SOURCE NO. 4 RENAL CALCULUS FORMATION IN RATS

***** WASTE ITEM NO. 4 FOOD PARTICLES
STATE SOLID
DENSITY 95.00 LBS/CU. FT.
ATTRIBUTES AEROSOL
ELEMENTS PRESENT ..
COMPOSITION CHGN
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.15
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 5 WASTE WATER
STATE LIQUID
DENSITY 62.40 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION WATER
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.50
DAILY RATE 0.02
BATCH SIZE 0.02
RECLAMATION ACTION ..

***** WASTE ITEM NO. 6 URINE
STATE LIQUID
DENSITY 63.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION WATER
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.01
DAILY RATE 0.01
BATCH SIZE 0.01
RECLAMATION ACTION .. DISTILL

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (D)
GROUP KEY 3-5.1

** EQUIPMENT/EXPERIMENT NO. 4GASTROINTESTINAL
*** WASTE SOURCE NO. 4 RENAL CALCULUS FORMATION IN RATS

***** WASTE ITEM NO. 7 FECES
STATE SEMI-SOLID
DENSITY 87.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION CHON
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.03
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 8 DATA SHEETS
STATE SOLID
DENSITY 72.00 LBS/CU. FT.
ATTRIBUTES SHEETS
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.10
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 9 GLASS SLIDES
STATE SOLID
DENSITY 160.00 LBS/CU. FT.
ATTRIBUTES FLAT
ELEMENTS PRESENT .. SIG2
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.50
DAILY RATE 0.02
BATCH SIZE 0.02
RECLAMATION ACTION .. WASH

S/C SUBSYSTEM BIOMEDICAL RESEARCH (D)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 4GASTROINTESTINAL

*** WASTE SOURCE NO. 4 RENAL CALCULUS FORMATION IN RATS

***** WASTE ITEM NO. 10 LITTER

STATE SOLID

DENSITY 43.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 0.40

DAILY RATE 0.14

BATCH SIZE 0.14

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 11 INSTRUMENT

STATE SOLID

DENSITY 200.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION VARIED

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 5.00

DAILY RATE 0.18

BATCH SIZE 0.18

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 12 CHEMICALS

STATE SOLID, LIQUID

DENSITY 90.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION URINALYSIS, COMPONENTS

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 3.00

DAILY RATE 0.10

BATCH SIZE 0.10

RECLAMATION ACTION ..

11/30/70

RUN NO.-** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (D)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 4GASTROINTESTINAL

**** WASTE SOURCE NO. 5 RENAL INFECTION IN RATS

DOCUMENT NO. 3.5.1.4.5

REMARKS (1) FOR OPERATIONAL DESCRIPTION SEE DOCUMENT
NO.A-3.5.1.4.4

***** WASTE ITEM NO. 1 4 RATS,ALBINO

STATE SOLID

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 4.40

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 TISSUE FIXATIVES

STATE LIQUID

DENSITY 112.00 LBS/CU. FT.

ATTRIBUTES CHEMICAL

ELEMENTS PRESENT ..

COMPOSITION WAXES

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 1.00

DAILY RATE 0.07

BATCH SIZE 0.07

RECLAMATION ACTION ..

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (E)

GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 5 METABOLISM AND NUTRITION

ASSOCIATED FPE NUMBER ... 5.13

S/C AREAS MEDICAL LABORATORY

*** WASTE SOURCE NO. 1 ENERGY METABOLISM

DOCUMENT NO. 3.5.1.5.1

REFERENCE NO. 1 .. MEDICAL ASPECTS OF AN ORBITING RESEARCH
LABORATORY, NASA SPACE MEDICINE ADVISORY
GROUP, NASA REPORT NO. SP-86, 1966

REFERENCE NO. 2 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, REVISION NO. 1, SEPTEMBER
1, 1969, NASA OMSF.

***** WASTE ITEM NO. 1 DATA SHEETS

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

1.00

DAILY RATE

0.00

BATCH SIZE

0.02

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 CHEMICAL FOR GAS ANALYSIS

STATE SOLID

DENSITY 70.00 LBS/CU. FT.

ATTRIBUTES LIQUID

ELEMENTS PRESENT ..

COMPOSITION KOH, K PYROGALLATE

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

5.00

DAILY RATE

0.00

BATCH SIZE

0.10

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (E)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 5 METABOLISM AND NUTRITION

*** WASTE SOURCE NO. 2 CARBOHYDRATE AND FAT METABOLISM

DOCUMENT NO. 3.5.1.5.2

REFERENCE NO. 1 .. MEDICAL ASPECTS OF AN ORBITING RESEARCH
LABORATORY, NASA SPACE MEDICINE ADVISORY
GROUP, NASA REPORT NO. SP-86, 1966

REFERENCE NO. 2 .. NASA EXPERIMENT DESCRIPTIONS FOR EXTENDE
D APOLLO EARTH-ORBIT FLIGHTS, NASA HEADQ
UARTERS, WASHINGTON, D.C. MARCH 1965.

REFERENCE NO. 3 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, REVISION NO. 1, SEPTEMBE
R 1, 1969, NASA OMSF.

*** ** WASTE ITEM NO. 1 DATA SHEETS

STATE SOLID

DENSITY 44.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.10

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

*** ** WASTE ITEM NO. 2 COMBISTIX (URINE)

STATE SOLID

DENSITY 70.00 LBS/CU. FT.

ATTRIBUTES PAPER, IMPREGNATED

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.25

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION ..

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (E)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 5 METABOLISM AND NUTRITION
**** WASTE SOURCE NO. 2 CARBOHYDRATE AND FAT METABOLISM
*****!*****

***** WASTE ITEM NO. 3 CHEMICALS (BLOOD SUGAR ETC.)
STATE VARIED
DENSITY 56.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT .. FE, KI
COMPOSITION CU SALT
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.25
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 4 BLOOD
STATE LIQUID
DENSITY 65.52 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT .. C,H,O,N
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 3.00
DAILY RATE 0.00
BATCH SIZE 0.05
RECLAMATION ACTION ..

*** WASTE ITEM NO. 5 URINE
STATE LIQUID
DENSITY 63.60 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION WATER
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 4.00
DAILY RATE 0.00
BATCH SIZE 0.07
RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (E)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 5 METABOLISM AND NUTRITION
*** WASTE SOURCE NO. 2 CARBOHYDRATE AND FAT METABOLISM

***** WASTE ITEM NO. 6 GAUZE
STATE SOLID
DENSITY 90.48 LBS/CU. FT.
ATTRIBUTES POROUS
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.30
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 7 NEEDLE
STATE SOLID
DENSITY 438.00 LBS/CU. FT.
ATTRIBUTES STEEL, TUBE
ELEMENTS PRESENT ..
COMPOSITION FEC
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.00
DAILY RATE 0.00
BATCH SIZE 0.02
RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 8 SYRINGE
STATE SOLID
DENSITY 160.00 LBS/CU. FT.
ATTRIBUTES GLASS, TUBE
ELEMENTS PRESENT ..
COMPOSITION SiO2
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 4.00
DAILY RATE 0.00
BATCH SIZE 0.07
RECLAMATION ACTION .. WASH

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (E)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 5 METABOLISM AND NUTRITION
*** WASTE SOURCE NO. 2 CARBOHYDRATE AND FAT METABOLISM

***** WASTE ITEM NO. 9 EQUIPMENT
STATE SOLID
DENSITY 200.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION VARIED
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 5.00
DAILY RATE 0.70
BATCH SIZE 0.70
RECLAMATION ACTION .. REPAIR

11/30/70

RUN NC.*** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (E)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 5 METABOLISM AND NUTRITION

*** WASTE SOURCE NO. 3 PROTEIN METABOLISM

DOCUMENT NO. 3.5.1.5.3

REMARKS (1) FOR OPERATIONAL DESCRIPTION SEE DOCUMENT
NO. A- 3.5.1.5.2

*** WASTE ITEM NO. 1 DATA SHEETS

STATE SOLID
DENSITY 44.00 LBS/CU. FT.
ATTRIBUTES PAPER
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.10
DAILY RATE 0.00
BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

*** WASTE ITEM NO. 2 COMBISTIX (URINE)

STATE SOLID
DENSITY 70.00 LBS/CU. FT.
ATTRIBUTES PAPER, IMPREGNATED
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.25
DAILY RATE 0.00
BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

*** WASTE ITEM NO. 3 CHEMICALS FOR BUN

STATE SOLID
DENSITY 70.00 LBS/CU. FT.
ATTRIBUTES PAPER
ELEMENTS PRESENT ..
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.25
DAILY RATE 0.00
BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

S/C SUBSYSTEM BIOMEDICAL RESEARCH (E)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 5 METABOLISM AND NUTRITION
*** WASTE SOURCE NO. 3 PROTEIN METABOLISM

***** WASTE ITEM NO. 4 BLOOD
STATE LIQUID
DENSITY 65.52 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT .. C,H,O,N
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 3.00
DAILY RATE 0.00
BATCH SIZE 0.04
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 5 URINE
STATE LIQUID
DENSITY 63.60 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION WATER
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 4.00
DAILY RATE 0.00
BATCH SIZE 0.06
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 6 GAUZE
STATE SOLID
DENSITY 90.48 LBS/CU. FT.
ATTRIBUTES POROUS
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 3.00
DAILY RATE 0.00
BATCH SIZE 0.04
RECLAMATION ACTION .. N/R

11/30/70

RUN NO.- ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (E)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 5 METABOLISM AND NUTRITION
** WASTE SOURCE NO. 3 PROTEIN METABOLISM

***** WASTE ITEM NO. 7 NEEDLE

STATE SOLID

DENSITY 488.00 LBS/CU. FT.

ATTRIBUTES STEEL, TUBE

ELEMENTS PRESENT ..

COMPOSITION FEC

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 1.00

DAILY RATE 0.00

BATCH SIZE 0.01

RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 8 SYRINGE

STATE SOLID

DENSITY 160.00 LBS/CU. FT.

ATTRIBUTES GLASS, TUBE

ELEMENTS PRESENT ..

COMPOSITION SIC2

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 4.00

DAILY RATE 0.00

BATCH SIZE 0.06

RECLAMATION ACTION .. WASH

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (E)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 5 METABOLISM AND NUTRITION
*** *****

*** WASTE SOURCE NO. 4 FLUID AND ELECTROLYTE BALANCE

DOCUMENT NO. 3.5.1.5.4

REFERENCE NO. 1 .. MEDICAL ASPECTS OF AN ORBITING RESEARCH
LABORATORY, NASA SPACE MEDICINE ADVISORY
GROUP, NASA REPORT NO. SP-86, 1966

REFERENCE NO. 2 .. NASA EXPERIMENT DESCRIPTIONS FOR EXTENDED
APOLLO EARTH-ORBIT FLIGHTS, NASA HEADQUARTERS,
WASHINGTON, D.C., MARCH 1965.

REFERENCE NO. 3 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, REVISION NO. 1, SEPTEMBER
1, 1969, NASA OMSF.

***** WASTE ITEM NO. 1 DATA SHEETS
STATE SOLID
DENSITY 44.00 LBS/CU. FT.
ATTRIBUTES PAPER
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.10
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 COMBISTIX (URINE)
STATE SOLID
DENSITY 64.20 LBS/CU. FT.
ATTRIBUTES PAPER, IMPREGNATED
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.25
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

11/30/70

RUN NO.~ ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (E)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 5METABOLISM AND NUTRITION
*** WASTE SOURCE NO. 4 FLUID AND ELECTROLYTE BALANCE

*** WASTE ITEM NO. 3 CHEMICALS (BLOOD SUGAR) GAS ANALYSIS
STATE VARIED
DENSITY 56.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT .. FE, KI
COMPOSITION CU SALT, KOH, K PYROGALLATE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.25
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 4 BLOOD
STATE LIQUID
DENSITY 65.52 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT .. C, H, O, N
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 4.00
DAILY RATE 0.00
BATCH SIZE 0.07
RECLAMATION ACTION ..

***** WASTE ITEM NO. 5 URINE
STATE LIQUID
DENSITY 63.60 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION WATER
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 4.00
DAILY RATE 0.00
BATCH SIZE 0.07
RECLAMATION ACTION .. N/R

S/C SUBSYSTEM BIOMEDICAL RESEARCH (E)
 GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 5 METABOLISM AND NUTRITION
 *** WASTE SOURCE NO. 4 FLUID AND ELECTROLYTE BALANCE

***** WASTE ITEM NO. 6 GADZE
 STATE SOLID
 DENSITY 90.48 LBS/CU. FT.
 ATTRIBUTES POROUS
 ELEMENTS PRESENT ..
 COMPOSITION CELLULOSE
 GENERATION DATA ... QUANTITY (LBS)
 EXPT. TOTAL 0.30
 DAILY RATE 0.00
 BATCH SIZE 0.00
 RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 7 NEEDLE
 STATE SOLID
 DENSITY 488.00 LBS/CU. FT.
 ATTRIBUTES STEEL, TUBE
 ELEMENTS PRESENT ..
 COMPOSITION FEC
 GENERATION DATA ... QUANTITY (LBS)
 EXPT. TOTAL 1.00
 DAILY RATE 0.00
 BATCH SIZE 0.02
 RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 8 SYRINGE
 STATE SOLID
 DENSITY 160.00 LBS/CU. FT.
 ATTRIBUTES GLASS, TUBE
 ELEMENTS PRESENT ..
 COMPOSITION SIQ2
 GENERATION DATA ... QUANTITY (LBS)
 EXPT. TOTAL 4.00
 DAILY RATE 0.00
 BATCH SIZE 7.00
 RECLAMATION ACTION .. WASH

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (E)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 5 METABOLISM AND NUTRITION
*** WASTE SOURCE NO. 4 FLUID AND ELECTROLYTE BALANCE

***** WASTE ITEM NO. 9 ISOTOPES
STATE LIQUID
DENSITY 64.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION DFP32CR31
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.75
DAILY RATE 0.00
BATCH SIZE 0.01
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 10 INSTRUMENTS
STATE SOLID
DENSITY 90.00 LBS/CU. FT.
ATTRIBUTES GLASS
ELEMENTS PRESENT ..
COMPOSITION VARIED
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 5.00
DAILY RATE 0.10
BATCH SIZE 0.10
RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 11 ELECTROPHORESIS PAPER
STATE SOLID
DENSITY 79.00 LBS/CU. FT.
ATTRIBUTES PAPER
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 5.00
DAILY RATE 0.00
BATCH SIZE 0.08
RECLAMATION ACTION .. N/R

S/C SUBSYSTEM BIOMEDICAL RESEARCH (E)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 5 METABOLISM AND NUTRITION
*** WASTE SOURCE NO. 4 FLUID AND ELECTROLYTE BALANCE

***** WASTE ITEM NO. 12 URINE N. CHEMICALS
STATE SOLID
DENSITY 0.00 LBS/CU. FT.
ATTRIBUTES LIQUID
ELEMENTS PRESENT ..
COMPOSITION H2SO4-NH4OH, (KI)2, HGI2
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 5.00
DAILY RATE 0.00
BATCH SIZE 0.08
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 13 DATA SHEETS
STATE SOLID
DENSITY 44.00 LBS/CU. FT.
ATTRIBUTES PAPER
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.10
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 14 STAINS
STATE LIQUID
DENSITY 64.20 LBS/CU. FT.
ATTRIBUTES DYE
ELEMENTS PRESENT ..
COMPOSITION AMIDO-SCHWARZ 10
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.10
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. COLLECT EXCESS

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (E)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 5 METABOLISM AND NUTRITION
**** WASTE SOURCE NO. 4 FLUID AND ELECTROLYTE BALANCE

***** WASTE ITEM NO. 15 COMBISTIX (URINE)

STATE	SOLID	
DENSITY	70.00 LBS/CU. FT.	
ATTRIBUTES	PAPER, IMPREGNATED	
ELEMENTS PRESENT ..		
COMPOSITION	CELLULOSE	
GENERATION DATA ...		QUANTITY (LBS)
EXPT. TOTAL		0.25
DAILY RATE		0.00
BATCH SIZE		0.00
RECLAMATION ACTION ..	N/R	

***** WASTE ITEM NO. 16 ISOTOPES

STATE	LIQUID	
DENSITY	64.00 LBS/CU. FT.	
ATTRIBUTES		
ELEMENTS PRESENT ..		
COMPOSITION	DFP32CR31	
GENERATION DATA ...		QUANTITY (LBS)
EXPT. TOTAL		0.75
DAILY RATE		0.00
BATCH SIZE		0.01
RECLAMATION ACTION ..	COLLECT	

***** WASTE ITEM NO. 17 CHEMICALS (BLOOD SUGAR) URINE N

STATE	VARIED	
DENSITY	56.00 LBS/CU. FT.	
ATTRIBUTES		
ELEMENTS PRESENT ..	FE, KI -	
COMPOSITION	CU SALT, H2SO4-NH4OH	
GENERATION DATA ...		QUANTITY (LBS)
EXPT. TOTAL		0.25
DAILY RATE		0.00
BATCH SIZE		0.00
RECLAMATION ACTION ..	N/R	

S/C SUBSYSTEM BIOMEDICAL RESEARCH (E)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 5 METABOLISM AND NUTRITION

*** WASTE SOURCE NO. 4 FLUID AND ELECTROLYTE BALANCE

*** *****

**** WASTE ITEM NO. 18 BLOOD

STATE LIQUID

DENSITY 65.52 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT .. C₇H₇C₇N

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 4.00

DAILY RATE 0.00

BATCH SIZE 0.08

RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 19 URINE

STATE LIQUID

DENSITY 63.60 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION WATER

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 4.00

DAILY RATE 0.00

BATCH SIZE 0.08

RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 20 GAUZE

STATE SOLID

DENSITY 90.48 LBS/CU. FT.

ATTRIBUTES POROUS

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.50

DAILY RATE 0.00

BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (E) ,
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 5METABOLISM AND NUTRITION

*** WASTE SOURCE NO. 4 FLUID AND ELECTROLYTE BALANCE

***** WASTE ITEM NO. 21 NEEDLE

STATE SOLID

DENSITY 488.00 LBS/CU. FT.

ATTRIBUTES STEEL, TUBE

ELEMENTS PRESENT ..

COMPOSITION FEC

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 1.00

DAILY RATE 0.00

BATCH SIZE 0.02

RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 22 SYRINGE

STATE SOLID

DENSITY 160.00 LBS/CU. FT.

ATTRIBUTES GLASS, TUBE

ELEMENTS PRESENT ..

COMPOSITION SiO2

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 4.00

DAILY RATE 0.00

BATCH SIZE 0.08

RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 23 INSTRUMENT

STATE SOLID

DENSITY 166.00 LBS/CU. FT.

ATTRIBUTES CHEMICAL, GLASS

ELEMENTS PRESENT .. HG, H

COMPOSITION SiO2

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 5.00

DAILY RATE 0.00

BATCH SIZE 0.10

RECLAMATION ACTION .. REPAIR

S/C SUBSYSTEM BIOMEDICAL RESEARCH (E)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 5 METABOLISM AND NUTRITION

*** WASTE SOURCE NO. 5 MINERAL METABOLISM

DOCUMENT NO. 3.5.1.5.5

REMARKS (1) FOR OPERATIONAL DESCRIPTION SEE DOCUMENT
NO. A- 3.5.1.5.4

**** WASTE ITEM NO. 1 DATA SHEETS
STATE SOLID
DENSITY 44.00 LBS/CU. FT.
ATTRIBUTES PAPER
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.10
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 2 COMBISTIX
STATE SOLID
DENSITY 70.00 LBS/CU. FT.
ATTRIBUTES PAPER, IMPREGNATED
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.25
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 3 CHEMICAL, SERUM, AND URINARY TESTS
STATE SOLID, LIQUID
DENSITY 56.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION NH4)2C2O4, H2O, METHYLRED, SNCL, MOLYBDATE,
KMNO4
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.25
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (E)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 5 METABOLISM AND NUTRITION

*** WASTE SOURCE NO. 5 MINERAL METABOLISM

*** ~~~~~

*** ** WASTE ITEM NO. 4 BLOOD

STATE LIQUID

DENSITY 65.52 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT .. C,H,O,N

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 4.00

DAILY RATE 0.00

BATCH SIZE 0.08

RECLAMATION ACTION .. N/R

/***** WASTE ITEM NO. 5 URINE

STATE LIQUID

DENSITY 63.60 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION WATER

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 4.00

DAILY RATE 0.00

BATCH SIZE 0.08

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 6 GAUZE

STATE SOLID

DENSITY 90.48 LBS/CU. FT.

ATTRIBUTES POROUS

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.30

DAILY RATE 0.00

BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (E)
GROUP KEY 3-5.1

** EQUIPMENT/EXPERIMENT NO. 5 METABOLISM AND NUTRITION

*** WASTE SOURCE NO. 5 MINERAL METABOLISM

***** WASTE ITEM NO. 7 NEEDLE

STATE SOLID

DENSITY 488.00 LBS/CU. FT.

ATTRIBUTES STEEL, TUBE

ELEMENTS PRESENT ..

COMPOSITION FEC

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 1.00

DAILY RATE 0.00

BATCH SIZE 0.02

RECLAMATION ACTION .. WASH

*** WASTE ITEM NO. 8 SYRINGE

STATE SOLID

DENSITY 160.00 LBS/CU. FT.

ATTRIBUTES STEEL, TUBE

ELEMENTS PRESENT ..

COMPOSITION SiO2

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 4.00

DAILY RATE 0.00

BATCH SIZE 0.08

RECLAMATION ACTION .. WASH

*** WASTE ITEM NO. 9 INSTRUMENTS

STATE SOLID

DENSITY 90.00 LBS/CU. FT.

ATTRIBUTES GLASS, CHEMICAL

ELEMENTS PRESENT .. H, HG

COMPOSITION SiO2, CALOMEL

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 5.00

DAILY RATE 0.00

BATCH SIZE 0.10

RECLAMATION ACTION .. REPAIR IF POSSIBLE

11/30/70

RUN NO.-** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (E)
GROUP KEY 3.5.1

** FLIP/IENT/EXPERIMENT NO. 5 METABOLISM AND NUTRITION

*** WASTE SOURCE NO. 6 BIOASSAY OF BODY FLUIDS

DOCUMENT NO. 3.5.1.5.6

REMARKS (1) FOR OPERATIONAL DESCRIPTION SEE DOCUMENT
NO. A- 3.5.1.5.4

*** ** WASTE ITEM NO. 1 DATA SHEETS

STATE SOLID

DENSITY 44.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.10

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

*** ** WASTE ITEM NO. 2 STAINS

STATE LIQUID

DENSITY 64.20 LBS/CU. FT.

ATTRIBUTES DYE

ELEMENTS PRESENT ..

COMPOSITION AMIDO-SCHWARZ 10

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.10

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. COLLECT EXCESS

*** ** WASTE ITEM NO. 3 COMBISTIX (URINE)

STATE SOLID

DENSITY 70.00 LBS/CU. FT.

ATTRIBUTES PAPER IMPREGNATED

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.25

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM BIOMEDICAL RESEARCH (E)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 5 METABOLISM AND NUTRITION

** WASTE SOURCE NO. 6 BIOASSAY OF BODY FLUIDS

***** WASTE ITEM NO. 4 ISOTOPIES

STATE LIQUID

DENSITY 64.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION DFP32CR31

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

0.75

DAILY RATE

0.00

BATCH SIZE

0.01

RECLAMATION ACTION .. COLLECT

***** WASTE- ITEM NO. 5 CHEMICALS (BLOOD, SUGAR) URINE N.

STATE VARIED

DENSITY 56.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT .. FE, KI

COMPOSITION CU SALT, H2SO4, NH4OH

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

0.25

DAILY RATE

0.00

BATCH SIZE

0.00

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 6 BLOOD

STATE LIQUID

DENSITY 65.52 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT .. C, H, O, N

COMPOSITION

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

4.00

DAILY RATE

0.00

BATCH SIZE

0.08

RECLAMATION ACTION .. N/R

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RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (E)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 5 METABOLISM AND NUTRITION

*** WASTE SOURCE NO. 6 BIOASSAY OF BODY FLUIDS

***** WASTE ITEM NO. 7 URINE

STATE LIQUID

DENSITY 63.60 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION WATER

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 4.00

DAILY RATE 0.00

BATCH SIZE 0.08

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 8 GAUZE

STATE SOLID

DENSITY 90.48 LBS/CU. FT.

ATTRIBUTES POROUS

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 0.50

DAILY RATE 0.00

BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 9 NEEDLE

STATE SOLID

DENSITY 488.00 LBS/CU. FT.

ATTRIBUTES STEEL, TUBE

ELEMENTS PRESENT ..

COMPOSITION FEC

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 1.00

DAILY RATE 0.00

BATCH SIZE 0.02

RECLAMATION ACTION .. WASH

** MANNED SPACECRAFT WASTE GENERATION DATA **

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RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (E)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 5 METABOLISM AND NUTRITION

*** WASTE SOURCE NO. 6 BIGASSAY OF BODY FLUIDS

***** WASTE ITEM NO. 10 SYRINGE

STATE SOLID

DENSITY 160.00 LBS/CU. FT.

ATTRIBUTES GLASS, TUBE

ELEMENTS PRESENT ..

COMPOSITION SIG2

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

4.00

DAILY RATE

0.00

BATCH SIZE

0.08

RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 11 INSTRUMENT

STATE SOLID

DENSITY 160.00 LBS/CU. FT.

ATTRIBUTES CHEMICAL, GLASS

ELEMENTS PRESENT .. HG, H

COMPOSITION SIG2

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

5.00

DAILY RATE

0.00

BATCH SIZE

0.10

RECLAMATION ACTION ..

S/C SUBSYSTEM BIOMEDICAL RESEARCH (F)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 6 MUSCULOSKELETAL

ASSOCIATED FPE NUMBER ... 5.13
S/C AREAS MEDICAL LABORATORY

**** WASTE SOURCE NO. 1 BONE DENSITY

DOCUMENT NO. 3.5.1.6.1

REFERENCE NO. 1 .. MEDICAL ASPECTS OF AN ORBITING RESEARCH
LABORATORY, NASA SPACE MEDICINE ADVISORY
GROUP, NASA REPORT NO. SP-86, 1960.

REFERENCE NO. 2 .. NASA EXPERIMENT DESCRIPTIONS FOR EXTENDED
APOLLO EARTH-ORBIT FLIGHTS, NASA HEADQUARTERS,
WASHINGTON, D.C., MARCH 1965.

REFERENCE NO. 3 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, REVISION NO. 1, SEPTEMBER 1
1969, NASA OMSF.

*** WASTE ITEM NO. 1 BLOOD

STATE LIQUID

DENSITY 63.60 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION WATER

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

4.00

DAILY RATE

0.00

BATCH SIZE

0.07

RECLAMATION ACTION .. N/R

*** WASTE ITEM NO. 2 URINE

STATE LIQUID

DENSITY 65.50 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION WATER

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

6.00

DAILY RATE

0.00

BATCH SIZE

0.11

RECLAMATION ACTION .. DISTILL, N/R

S/C SUBSYSTEM BIOMEDICAL RESEARCH (F)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 6 MUSCULOSKELETAL

*** WASTE SOURCE NO. 1 BONE DENSITY

*** WASTE ITEM NO. 3 SYRINGE

STATE SOLID

DENSITY 160.00 LBS/CU. FT.

ATTRIBUTES GLASS TUBE

ELEMENTS PRESENT .. SI02

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 5.00

DAILY RATE 0.00

BATCH SIZE 0.10

RECLAMATION ACTION .. WASH

*** WASTE ITEM NO. 4 NEEDLE

STATE SOLID

DENSITY 488.00 LBS/CU. FT.

ATTRIBUTES STEEL TUBE

ELEMENTS PRESENT .. FEC

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.50

DAILY RATE 0.00

BATCH SIZE 0.03

RECLAMATION ACTION .. WASH

*** WASTE ITEM NO. 5 CHEM. SERUM, URINE, FECAL CA&P S. PHOSPHATAS

STATE LIQUID, SOLID

DENSITY 56.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION TCA, ALK. PHOSPHATASE SUBSTRATE PHOSPHATAS
S

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 3.00

DAILY RATE 0.00

BATCH SIZE 0.05

RECLAMATION ACTION .. N/R

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (F)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 6 MUSCULOSKELETAL
*** WASTE SOURCE NO. 1 BONE DENSITY

***** WASTE ITEM NO. 6 GAUZE
STATE SOLID
DENSITY 90.48 LBS/CU. FT.
ATTRIBUTES POROUS
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.50
DAILY RATE 0.00
BATCH SIZE 0.01
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 7 DATA SHEETS
STATE SOLID
DENSITY 72.00 LBS/CU. FT.
ATTRIBUTES SHEET
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.30
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 8 ISOTOPES
STATE LIQUID
DENSITY 0.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.00
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION ..

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (F)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 6 MUSCULOSKELETAL

*** WASTE SOURCE NO. 2 FRACTURE HEALING IN ANIMALS

DOCUMENT NO. 3.5.1.6.2

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, REVISION NO.1, SEPTEMBER 1
1969, NASA OMSF.

REFERENCE NO. 2 .. EFFECT OF RESTRAINT, STRESS AND FASTING O
N ORGAN SIZE IN THE DOMESTIC FOWL. PHYSIO
LOGIST 10 125, 1967.

REFERENCE NO. 3 .. PHYSIOLOGICAL LIMITATIONS ON ANIMAL PEST
RAINT, AEROSPACE MEDICINE, 38 1130, 1967.

REFERENCE NO. 4 .. CRITERIA FOR PHYSIOLOGIC STRESS AND ADAP
TATION. PHYSIOLOGIST 10 137, 1967.

***! WASTE ITEM NO. 1 ISOTOPES

STATE LIQUID

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES CHEMICAL

ELEMENTS PRESENT ..

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.00

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

***! WASTE ITEM NO. 2 CHEMICALS FOR SERUM PHOSPHATE CA & P

STATE SOLID, LIQUID

DENSITY 56.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION TCA ALK. PHOSPHATESE SUBSTRATE, PHOSPHATAS
S ALKALINE TABLET TCA

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.30

DAILY RATE 0.00

BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (F)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 6 MUSCULOSKELETAL
*** WASTE SOURCE NO. 2 FRACTURE HEALING IN ANIMALS

***** WASTE ITEM NO. 3 TISSUE FIXATIVES(ZENKERS)

STATE LIQUID

DENSITY 112.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT .. K2CR2O7,HGCL2,CH3COOH

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 2.00

DAILY RATE 0.00

BATCH SIZE 0.05

RECLAMATION ACTION .. COLLECT EXCESS

***** WASTE ITEM NO. 4 LITTER

STATE SOLID

DENSITY 43.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 5.00

DAILY RATE 0.00

BATCH SIZE 0.12

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 5 WATER WASTE

STATE LIQUID

DENSITY 62.40 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION WATER

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 6.00

DAILY RATE 0.00

BATCH SIZE 0.14

RECLAMATION ACTION .. DISTILL OR N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM BIOMEDICAL RESEARCH (F)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 6 MUSCULOSKELETAL
*** WASTE SOURCE NO. 2 FRACTURE HEALING IN ANIMALS
*** *****

***** WASTE ITEM NO. 6 FOOD WASTE
STATE SOLID
DENSITY 95.00 LBS/CU. FT.
ATTRIBUTES PARTICLES
ELEMENTS PRESENT ..
COMPOSITION COHN
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 2.00
DAILY RATE 0.00
BATCH SIZE 0.05
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 7 GLASS SLIDES
STATE SOLID
DENSITY 160.00 LBS/CU. FT.
ATTRIBUTES GLASS
ELEMENTS PRESENT .. SIG2
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.50
DAILY RATE 0.00
BATCH SIZE 0.01
RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 8 SIX GUINEA PIGS
STATE SOLID
DENSITY 0.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 8.50
DAILY RATE 0.00
BATCH SIZE 0.20
RECLAMATION ACTION .. BONES REMOVED

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (F)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 6 MUSCULOSKELETAL

**** WASTE SOURCE NO. 3 CALCIUM MOBILIZATION

DOCUMENT NO. 3.5.1.6.3

REMARKS (1) FOR OPERATIONAL DESCRIPTION SEE DOCUMENT
NO.A-3.5.1.6.2

***** WASTE ITEM NO. 1 ISOTOPES

STATE LIQUID

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES CHEMICAL

ELEMENTS PRESENT .. CA

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.00

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 CHEMICALS FOR SERUM PHOSPHATE CA & P

STATE SOLID, LIQUID

DENSITY 56.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION TCA ALK. PHOSPHATASE SUBSTRATE OR PHOSPHA

1 TABS ALKALINE TABLET TCA

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 2.00

DAILY RATE 0.00

BATCH SIZE 0.04

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 3 LITTER

STATE SOLID

DENSITY 43.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 3.00

DAILY RATE 0.00

BATCH SIZE 0.07

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

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```

*** ** WASTE ITEM NO. 6 .... GLASS SLIDES
      STATE ..... SOLID
      DENSITY ..... 160.00 LBS/CU. FT.
      ATTRIBUTES ..... GLASS
      ELEMENTS PRESENT .. SIC2
      COMPOSITION .....
      GENERATION DATA ... QUANTITY (LBS)
          EXPT. TOTAL                0.50
          DAILY RATE                  0.00
          BATCH SIZE                  0.01
      RECLAMATION ACTION .. WASH
  
```

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (F)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 6 MUSCULOSKELETAL

*** WASTE SOURCE NO. 3 CALCIUM MOBILIZATION

***** WASTE ITEM NO. 7 FOUR LEGHORN CHICKENS

STATE SOLID

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 0.00

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

S/C SUBSYSTEM BIOMEDICAL RESEARCH (F)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 6 MUSCULOSKELETAL

*** WASTE SOURCE NO. 4 MUSCLE MASS AND STRENGTH

DOCUMENT NO. 3.5.1.6.4

REFERENCE NO. 1 .. NASA EXPERIMENT DESCRIPTIONS FOR EXTENDED APOLLO EARTH-ORBIT FLIGHTS, NASA HEADQUARTERS, WASHINGTON, D.C., MARCH 1965.

REFERENCE NO. 2 .. REPT. ON THE OPTIMIZATION OF MANNED ORBITAL RESEARCH LAB. (MORL) SYSTEM CONCEPT, PHASE IIA, VOL. XXII & XXIII, EXPERIMENT PROGRAM DOUGLAS REPT. NOS. SM46083 & SM46084, SEPTEMBER 1969, NASA OMSF.

REFERENCE NO. 3 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH ORBITAL MISSIONS, REVISION NO. 1, SEPTEMBER 1969, NASA OMSF.

***** WASTE ITEM NO. 1 BLOOD

STATE LIQUID

DENSITY 63.60 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION WATER

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 2.00

DAILY RATE 0.00

BATCH SIZE 0.03

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 URINE

STATE LIQUID

DENSITY 65.50 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION WATER

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 50.00

DAILY RATE 0.00

BATCH SIZE 0.89

RECLAMATION ACTION .. DISTILL OR N/R

S/C SUBSYSTEM BIOMEDICAL RESEARCH (F)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 6 MUSCULOSKELETAL

*** WASTE SOURCE NO. 5 INDUCTION OF PRESSURE ATROPHY

DOCUMENT NO. 3.5.1.6.5

REMARKS { 1} FOR OPERATIONAL DESCRIPTION SEE DOCUMENT
NO. A-3.5.1.6.2

**** WASTE ITEM NO. 1 ISOTOPES

STATE LIQUID

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES CHEMICAL

ELEMENTS PRESENT ..

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.00

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 2 CHEMICALS FOR SERUM PHOSPHATE

STATE SOLID, LIQUID

DENSITY 56.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION TCA ALK. PHOSPHATASE SUBSTRATE OR PHOSPHA
TABS ALKALINE TABLET

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 2.00

DAILY RATE 0.00

BATCH SIZE 0.30

RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 3 CA & P

STATE SOLID, LIQUID

DENSITY 56.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION TCA, ALK. PHOSPHATASE SUBSTRATE, PHOSPHO
TABS ALKALINE TABLET

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 2.00

DAILY RATE 0.00

BATCH SIZE 0.30

RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (F)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 6 MUSCULOSKELETAL
*** WASTE SOURCE NO. 5 INDUCTION OF PRESSURE ATROPHY
*** ~~~~~

*** WASTE ITEM NO. 4 TISSUE FIXATIVES(ZENKERS)
STATE LIQUID
DENSITY 112.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT .. K2CR2O7,HGCL2,CH3COOH
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.50
DAILY RATE 0.00
BATCH SIZE 3.00
RECLAMATION ACTION .. COLLECT EXCESS

*** WASTE ITEM NO. 5 LITTER
STATE SOLID
DENSITY 43.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 3.00
DAILY RATE 0.00
BATCH SIZE 0.50
RECLAMATION ACTION .. N/R

*** WASTE ITEM NO. 6 WATER WASTE
STATE LIQUID
DENSITY 62.40 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION WATER
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.00
DAILY RATE 0.00
BATCH SIZE 0.16
RECLAMATION ACTION .. DISTILL OR N/R

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (F)
GROUP KEY 3.5.]

** EQUIPMENT/EXPERIMENT NO. 6 MUSCULOSKELETAL

**** WASTE SOURCE NO. 5 INDUCTION OF PRESSURE ATROPHY

***** WASTE ITEM NO. 7 FOOD WASTE

STATE SOLID

DENSITY 95.00 LBS/CU. FT.

ATTRIBUTES PARTICLES

ELEMENTS PRESENT ..

COMPOSITION COHN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.40

DAILY RATE 0.00

BATCH SIZE 0.06

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 8 GLASS SLIDES

STATE SOLID

DENSITY 160.00 LBS/CU. FT.

ATTRIBUTES GLASS

ELEMENTS PRESENT .. SIC2

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.50

DAILY RATE 0.00

BATCH SIZE 0.08

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 9 INSTRUMENTS

STATE SOLID

DENSITY 166.00 LBS/CU. FT.

ATTRIBUTES METAL, GLASS

ELEMENTS PRESENT .. FEC, SIO2

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 5.00

DAILY RATE 0.00

BATCH SIZE 0.80

RECLAMATION ACTION ..

** MANNED SPACECRAFT WASTE GENERATION DATA **

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*** EQUIPMENT/EXPERIMENT NO. 6 MUSCULOSKELETAL
 *** WASTE SOURCE NO. 5 INDUCTION OF PRESSURE ATROPHY
 *** * **

** MANNED SPACECRAFT WASTE GENERATION DATA **

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RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (F)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 6 MUSCULOSKELETAL

*** WASTE SOURCE NO. 6 ELECTROMYOGRAPHY AS AN INDEX OF RECONDIT
ICNING

DOCUMENT NO. 3.5.1.6.6

REMARKS { 1 } FOR OPERATIONAL DESCRIPTION SEE DOCUMENT
NO. A-3.5.1.6.4

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (F)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 6 MUSCULOSKELETAL

*** WASTE SOURCE NO. 7 SPECIMEN MASS MEASUREMENT

DOCUMENT NO. 3.5.1.6.7

REMARKS (1) /EXACT CONFIG.OF EQUIP.NOT FIXED NOR SPE
CIFICSOF STUDY PROG/SPRING LOADED DEVICE
CCNTEMPLATED,CAPABLE ELECT.READOUT/NO C
ONSUMABLES/EXPENPABLES OR WASTES LISTED

11/30/70

RUN NO. *** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (G)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 7 ENDOCRINOLOGY

ASSOCIATED FPE NUMBER ... 5.13
S/C AREAS MEDICAL LABORATORY

**** WASTE SOURCE NO. 1 ENDOCRINE FUNCTION AND STRESS PHYSIOLOGY
DOCUMENT NO. 3.5.1.7.1

REFERENCE NO. 1 .. NASA EXPERIMENT DESCRIPTIONS FOR EXTENDED APOLLO EARTH-ORBIT FLIGHTS, NASA HEADQUARTERS, WASHINGTON, D.C., MARCH 1965.

REFERENCE NO. 2 .. REPORT ON THE OPTIMIZATION OF THE MANNED ORBITAL RESEARCH LAB. (MORL) SYSTEM CONCEPT, PHASE IIA, VOL. XXII, XXIII, EXP. PROG., DOUGLAS REP. NOS. SM46063 & SM46084, SEP. 1

REFERENCE NO. 3 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH ORBITAL MISSIONS, REVISION NO. 1, SEPTEMBER 1, 1969, NASA OMSF.

***** WASTE ITEM NO. 1 BLOOD
STATE LIQUID
DENSITY 63.60 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION WATER
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 2.00
DAILY RATE 0.00
BATCH SIZE 0.03
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 URINE
STATE LIQUID
DENSITY 65.50 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION WATER
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 50.00
DAILY RATE 0.00
BATCH SIZE 0.89
RECLAMATION ACTION .. DISTILL OR N/R

11/30/70

RUN NO. ** 2 **

PAGE 467

S/C SUBSYSTEM BIOMEDICAL RESEARCH (G)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 7 ENDOCRINOLOGY
*** WASTE SOURCE NO. 1 ENDOCTRINE FUNCTION AND STRESS PHYSIOLOG
Y

***** WASTE ITEM NO. 3 SYRINGE
STATE SOLID
DENSITY 160.00 LBS/CU. FT.
ATTRIBUTES GLASS TUBE
ELEMENTS PRESENT .. SI, O2
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 6.00
DAILY RATE 0.00
BATCH SIZE 0.10
RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 4 NEEDLE
STATE SOLID
DENSITY 488.00 LBS/CU. FT.
ATTRIBUTES STEEL TUBE
ELEMENTS PRESENT .. FE, C
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.40
DAILY RATE 0.00
BATCH SIZE 0.01
RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 5 CHEMICALS FOR HORMONE ASSAYS
STATE LIQUID/SOLID
DENSITY 56.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION TBD
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 10.00
DAILY RATE 0.00
BATCH SIZE 0.17
RECLAMATION ACTION .. N/R

11/30/70

RUN NO.- ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (G)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 7 ENDOCRINOLOGY
*** WASTE SOURCE NO. 1 ENDOCRINE FUNCTION AND STRESS PHYSIOLOGY
Y

*** ** WASTE ITEM NO. 6 GAUZE
STATE SOLID
DENSITY 90.48 LBS/CU. FT.
ATTRIBUTES POROUS
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.60
DAILY RATE 0.00
BATCH SIZE 0.01
RECLAMATION ACTION .. N/R

*** ** WASTE ITEM NO. 7 DATA SHEETS
STATE SOLID
DENSITY 72.00 LBS/CU. FT.
ATTRIBUTES SHEET
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.10
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

*** ** WASTE ITEM NO. 8 CHEMICALS GAS ANALYSIS
STATE SOLID LIQUID
DENSITY 56.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT .. K₂O₂H
COMPOSITION KPYROGALLATE, ETC.
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.00
DAILY RATE 0.00
BATCH SIZE 0.01
RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (G)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 7 ENDOCRINOLOGY
*** WASTE SOURCE NO. 1 ENDOCTRINE FUNCTION AND STRESS PHYSIOLOG

Y

*** WASTE ITEM NO. 9 SPECIFIC ION ELECTRODES

STATE SOLID

DENSITY 166.00 LBS/CU. FT.

ATTRIBUTES GLASS, CHEMICALS

ELEMENTS PRESENT .. HG

COMPOSITION CALOMEL ETC.

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

0.30

DAILY RATE

0.00

BATCH SIZE

0.00

RECLAMATION ACTION .. REPAIR OR DISCARD

- - -

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM BIOMEDICAL RESEARCH (G)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 7 ENDOCRINOLOGY

**** WASTE SOURCE NO. 2 TEMPERATURE REGULATION MECHANISMS

DOCUMENT NO. 3.5.1.7.2

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, REVISION NO. 1, SEPTEMBE
R 1, 1969, NASA OMSF.

REFERENCE NO. 2 .. EVEA PROGRAM REQUIREMENTS STUDY, FINAL R
EPCRT, NORTH AMERICAN ROCKWELL REPORT NO.
SD-68-304-7, 1968.

REFERENCE NO. 3 .. S.P. VINOGRAD, MEDICAL ASPECTS OF AN ORB
ITING RESEARCH LABORATORY, SPACE MEDICAL
ADVISORY GROUP STUDY, NASA REPORT NO. SP
-86, 1964.

***** WASTE ITEM NO. 1 BLOOD

STATE LIQUID

DENSITY 63.60 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION WATER

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

2.00

DAILY RATE

0.00

BATCH SIZE

0.03

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 SYRINGE

STATE SOLID

DENSITY 160.00 LBS/CU. FT.

ATTRIBUTES GLASS TUBE

ELEMENTS PRESENT .. SI, O2

COMPOSITION

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

3.00

DAILY RATE

0.00

BATCH SIZE

0.05

RECLAMATION ACTION .. WASH

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (G)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 7 ENDOCRINOLOGY

**** WASTE SOURCE NO. 2 TEMPERATURE REGULATION MECHANISMS

***** **** *****

***** WASTE ITEM NO. 3 NEEDLE

STATE SOLID

DENSITY 488.00 LBS/CU. FT.

ATTRIBUTES STEEL TUBE

ELEMENTS PRESENT .. FE,C

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.10

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 4 CHEMICALS GAS ANALYSIS

STATE LIQUID SOLID

DENSITY 56.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT .. K,C,H

COMPOSITION KPYROGALLATE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.00

DAILY RATE 0.00

BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 5 HORMONE ANALYSES

STATE TBD

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES TBD

ELEMENTS PRESENT .. TBD

COMPOSITION TBD

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 2.00

DAILY RATE 0.00

BATCH SIZE 0.03

RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (G)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 7 ENDOCRINOLOGY
*** WASTE SOURCE NO. 2 TEMPERATURE REGULATION MECHANISMS

***** WASTE ITEM NO. 6 PBI REACTANTS
STATE SOLID LIQUID
DENSITY 56.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION $2\text{NSO}_4, \text{KOH}, 1\text{H}_2\text{SO}_4, \text{AS}_2\text{O}_3\text{H}_2\text{PO}_3, \text{CA}(\text{OH})_4$
GENERATION DATA QUANTITY (LBS)
EXPT. TOTAL 2.00
DAILY RATE 0.00
BATCH SIZE 0.03
RECLAMATION ACTION .. N/R

/***** WASTE ITEM NO. 7 GAUZE
STATE SOLID
DENSITY 90.48 LBS/CU. FT.
ATTRIBUTES POROUS
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA QUANTITY (LBS)
EXPT. TOTAL 0.30
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 8 DATA SHEETS
STATE SOLID
DENSITY 72.00 LBS/CU. FT.
ATTRIBUTES SHEETS
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA QUANTITY (LBS)
EXPT. TOTAL 0.50
DAILY RATE 0.00
BATCH SIZE 0.01
RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (G)
3PCUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 7 ENDOCRINOLOGY
*** WASTE SOURCE NO. 2 TEMPERATURE REGULATION MECHANISMS
*** '*****

***** WASTE ITEM NO. 9 TEST TUBES
STATE SOLID
DENSITY 160.00 LBS/CU. FT.
ATTRIBUTES GLASS
ELEMENTS PRESENT .. SI,O2
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 3.00
DAILY RATE 0.00
BATCH SIZE 0.05
RECLAMATION ACTION .. WASH

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (G)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 7 ENDOCRINOLOGY

**** WASTE SOURCE NO. 3 ADRENAL AND PARATHYROID FUNCTION IN RATS

DOCUMENT NO. 3.5.1.7.3

REFERENCE NO. 1 .. REPORT ON THE OPTIMIZATION OF THE MANNED
ORBITAL RESEARCH LAB. (MORL) SYSTEM CON-
CEPT, PHASE IIA, VOL. XXII, XXIII, EXP. PROG., D
DOUGLASS REP. NOS. SM46083 & SM46084, SEP.

REFERENCE NO. 2 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, REVISION NO. 1, SEPTEMBE
R 1, 1969, NASA OMSF.

REFERENCE NO. 3 .. REPORT ON THE DEVEL. OF THE MANNED ORBIT
AL RESEARCH LAB. (MORL) SYST. UTILIZATION
POTENTIAL. TASK AREA 1 ANAL. OF SPACE REL
ATED OBJECT., BK 2 DOUGLAS REP. SM48808, S

***** WASTE ITEM NO. 1 CHEMICALS FOR SPECIFIC HORMONE ASSAYS

STATE LIQUID

DENSITY 70.00 LBS/CU. FT.

ATTRIBUTES CHEMICAL

ELEMENTS PRESENT .. TBD

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.00

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 URINE

STATE LIQUID

DENSITY 63.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION WATER

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 25.00

DAILY RATE 0.00

BATCH SIZE 0.40

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (G)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 7 ENDOCRINOLOGY
*** WASTE SOURCE NO. 3 ADRENAL AND PARATHYROID FUNCTION IN RATS

***** WASTE ITEM NO. 3 TISSUE FIXATIVES (ZENKERS)
STATE LIQUID
DENSITY 112.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION K2CR2O7-HGCL2-CH3COOH
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.00
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. COLLECT

***** WASTE ITEM NO. 4 LITTER
STATE SOLID
DENSITY 43.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 6.00
DAILY RATE 0.00
BATCH SIZE 0.11
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 5 WATER WASTE
STATE LIQUID
DENSITY 62.40 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION WATER
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 10.00
DAILY RATE 0.00
BATCH SIZE 0.19
RECLAMATION ACTION .. DISTILL OR N/R

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (G)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 7 ENDOCRINOLOGY
*** WASTE SOURCE NO. 3 ADRENAL AND PARATHYROID FUNCTION IN RATS

***** WASTE ITEM NO. 6 FOOD WASTE
STATE SOLID
DENSITY 95.00 LBS/CU. FT.
ATTRIBUTES PARTICLES
ELEMENTS PRESENT .. C, O, H, N-
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 5.00
DAILY RATE 0.00
BATCH SIZE 0.10
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 7 GLASS SLIDES
STATE SOLID
DENSITY 160.00 LBS/CU. FT.
ATTRIBUTES GLASS
ELEMENTS PRESENT .. SI, O2
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.50
DAILY RATE 0.00
BATCH SIZE 0.01
RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 8 STAINS
STATE LIQUID
DENSITY 70.00 LBS/CU. FT.
ATTRIBUTES DYE
ELEMENTS PRESENT ..
COMPOSITION C16H14O6-3H2O C20H8BR4O5
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 5.00
DAILY RATE 0.00
BATCH SIZE 0.10
RECLAMATION ACTION .. COLLECT EXCESS

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (G)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 7 ENDOCRINOLOGY
*** WASTE SOURCE NO. 3 ADRENAL AND PARATHYROID FUNCTION IN RATS

***** WASTE ITEM NO. 9 SIX ALBINO RATS
STATE SOLID
DENSITY 0.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 2.70
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION ..

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (G)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 7 ENDOCRINOLOGY

*** WASTE SOURCE NO. 4 GONAD HISTOPATHOLOGY

DOCUMENT NO. 3.5.1.7.4

REFERENCE NO. 1 .. REPORT ON THE OPTIMIZATION OF THE MANNED
ORBITAL RESEARCH LAB. (MORL) SYSTEM CON-
CEPT, PHASE IIA, VOL. XXII, XXIII, EXP. PROG. D
OUGLASS REP. NOS. SM46083 & SM46084, SEP

REFERENCE NO. 2 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR-
BITAL MISSIONS, REVISION NO. 1, SEPTEMBER
1, 1969, NASA DMSF.

***** WASTE ITEM NO. 1 TISSUE FIXATIVES (ZENKERS)

STATE LIQUID

DENSITY 112.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION K2CR2O7-HGCL2-CH3COOH

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 2.00

DAILY RATE 0.00

BATCH SIZE 0.04

RECLAMATION ACTION .. COLLECT EXCESS

***** WASTE ITEM NO. 2 LITTER

STATE SOLID

DENSITY 43.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 6.00

DAILY RATE 0.00

BATCH SIZE 0.10

RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (G)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 7 ENDOCRINOLOGY

*** WASTE SOURCE NO. 4 GONAD HISTOPATHOLOGY

*** WASTE ITEM NO. 3 WATER WASTES

STATE LIQUID

DENSITY 62.40 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION WATER

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 10.00

DAILY RATE 0.00

BATCH SIZE 0.20

RECLAMATION ACTION .. DISTILL OR N/R

*** WASTE ITEM NO. 4 FOOD WASTE

STATE SOLID

DENSITY 95.00 LBS/CU. FT.

ATTRIBUTES PARTICLES

ELEMENTS PRESENT .. C,C,H,N

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 5.00

DAILY RATE 0.00

BATCH SIZE 0.09

RECLAMATION ACTION .. N/R

*** WASTE ITEM NO. 5 GLASS SLIDES

STATE SOLID

DENSITY 160.00 LBS/CU. FT.

ATTRIBUTES GLASS

ELEMENTS PRESENT .. SI,O2

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.50

DAILY RATE 0.00

BATCH SIZE 0.01

RECLAMATION ACTION .. WASH

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (G)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 7 ENDOCRINOLOGY

*** WASTE SOURCE NO. 4 GONAD HISTOPATHOLOGY

*** WASTE ITEM NO. 6 SIX ALBINO RATS

STATE SOLID

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 2.70

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

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RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (H)
GROUP KEY 3.5.1

* EQUIPMENT/EXPERIMENT NO. 8 HEMATOLOGY

ASSOCIATED FPE NUMBER ... 5.13
S/C AREAS MEDICAL LABORATORY

**** WASTE SOURCE NO. 1 LEUKOCYTE REPLICATION

DOCUMENT NO. 3.5.1.8.1

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, REVISION NO. 1, SEPTEMBER
R 1, 1969, NASA OMSF.

* **** WASTE ITEM NO. 1 COLOR FILM

STATE SOLID
DENSITY 83.00 LBS/CU. FT.
ATTRIBUTES PLASTIC, STRIP
ELEMENTS PRESENT ..

COMPOSITION ACLAR

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.50

DAILY RATE 0.00

BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

**** * WASTE ITEM NO. 2 GLASS SLIDES

STATE SOLID
DENSITY 160.00 LBS/CU. FT.
ATTRIBUTES GLASS
ELEMENTS PRESENT ..

COMPOSITION SiO2

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.20

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 3 BLOOD

STATE LIQUID
DENSITY 65.52 LBS/CU. FT.
ATTRIBUTES ORGANIC
ELEMENTS PRESENT ..

COMPOSITION BLOOD

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.00

DAILY RATE 0.00

BATCH SIZE 0.03

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

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RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (H)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 8HEMATOLOGY
*** WASTE SOURCE NO. 1 LEUKOCYTE REPLICATION

***** WASTE ITEM NO. 4 CHEMICALS- STAIN
STATE SOLID
DENSITY 70.00 LBS/CU. FT.
ATTRIBUTES 1N SOLUTION, STAINS
ELEMENTS PRESENT ..
COMPOSITION METHYLENE BLUE, EOSIN
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.00
DAILY RATE 0.00
BATCH SIZE 0.03
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 5 TEST TUBES
STATE SOLID
DENSITY 160.00 LBS/CU. FT.
ATTRIBUTES GLASS
ELEMENTS PRESENT ..
COMPOSITION SIC2
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 3.00
DAILY RATE 0.00
BATCH SIZE 0.07
RECLAMATION ACTION .. WASH

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (H)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 8HEMATOLOGY

*** WASTE SOURCE NO. 2 BLOOD CELL DYNAMICS - ERYTHROCYTE

DOCUMENT NO. 3.5.1.8.2

REFERENCE NO. 1 .. NATIONAL MULTIPURPOSE SPACE STATION, NAS
A MSC DECEMBER 1964.

REFERENCE NO. 2 .. MEDICAL ASPECTS OF AN ORBITING RESEARCH
LABORATORY, NASA SPACE MEDICINE ADVISORY
GROUP, NASA REPORT NO.SP-86, 1966.

REFERENCE NO. 3 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, REVISION NO. 1, NASA OMS
F, SEPTEMBER 1, 1969.

*** WASTE ITEM NO. 1 MICROSCOPIC SLIDES

STATE SOLID

DENSITY 175.00 LBS/CU. FT.

ATTRIBUTES NON R/A, GLASS

ELEMENTS PRESENT ..

COMPOSITION SIC2

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 4.50

DAILY RATE 0.00

BATCH SIZE 0.01

RECLAMATION ACTION .. WASH

*** WASTE ITEM NO. 2 MICROSCOPIC SLIDES

STATE SOLID

DENSITY 175.00 LBS/CU. FT.

ATTRIBUTES R/A, GLASS

ELEMENTS PRESENT ..

COMPOSITION SIC2

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 0.50

DAILY RATE 0.00

BATCH SIZE 0.01

RECLAMATION ACTION .. NONE

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (H)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 8HEMATOLOGY
*** WASTE SOURCE NO. 2 BLOOD CELL DYNAMICS - ERYTHROCYTE

***** WASTE ITEM NO. 3 CYTOLOGY STAIN
STATE SOLID
DENSITY 62.00 LBS/CU. FT.
ATTRIBUTES STAINS, INSOLUTION
ELEMENTS PRESENT ..
COMPOSITION METHYLENE BLUE, EOSIN
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 3.00
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. NONE

***** WASTE ITEM NO. 4 FILM PAPER
STATE SOLID
DENSITY 20.00 LBS/CU. FT.
ATTRIBUTES INERT
ELEMENTS PRESENT .. C, H, O
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 3.00
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. NONE

***** WASTE ITEM NO. 5 CONTAINER
STATE SOLID
DENSITY 175.00 LBS/CU. FT.
ATTRIBUTES GLASS, R/A
ELEMENTS PRESENT ..
COMPOSITION SiO2
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 2.00
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. R/A DECAY, WASH

S/C SUBSYSTEM BIOMEDICAL RESEARCH (H)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 8HEMATOLOGY
*** WASTE SOURCE NO. 2 BLOOD CELL DYNAMICS - ERYTHROCYTE

***** WASTE ITEM NO. 6 RADIOACTIVE ISOTOPES
STATE LIQUID
DENSITY 62.00 LBS/CU. FT.
ATTRIBUTES R/A
ELEMENTS PRESENT ..
COMPOSITION NA1131 - NA2CR5104
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.00
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. NONE

***** WASTE ITEM NO. 7 SYRINGE
STATE SOLID
DENSITY 160.00 LBS/CU. FT.
ATTRIBUTES GLASS, TUBE
ELEMENTS PRESENT ..
COMPOSITION SIG2
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 5.00
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 8 NEEDLE
STATE SOLID
DENSITY 488.00 LBS/CU. FT.
ATTRIBUTES STEEL, TUBE
ELEMENTS PRESENT ..
COMPOSITION FEC
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.30
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. WASH

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RUN NO. *** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (H)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 8HEMATOLOGY
*** WASTE SOURCE NO. 2 BLOOD CELL DYNAMICS - ERYTHROCYTE

***** WASTE ITEM NO. 9 CAPILLARY TUBES
STATE SOLID
DENSITY 160.00 LBS/CU. FT.
ATTRIBUTES GLASS, TUBE
ELEMENTS PRESENT ..
COMPOSITION SIC2
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.20
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. NONE

***** WASTE ITEM NO. 10 BLOOD
STATE LIQUID
DENSITY 65.00 LBS/CU. FT.
ATTRIBUTES ORGANIC
ELEMENTS PRESENT ..
COMPOSITION BLOOD
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.20
DAILY RATE 0.00
BATCH SIZE 0.01
RECLAMATION ACTION .. NONE

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RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (H)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 8HEMATOLOGY

**** WASTE SOURCE NO. 3 LEUKOCYTE DYNAMICS

DOCUMENT NO. 3.5.1.8.3

REMARKS (1) FOR OPERATIONAL DESCRIPTION SEE DOCUMENT
NO. A- 3.5.1.8.2

***** WASTE ITEM NO. 1 COLOR FILM

STATE SOLID

DENSITY 83.00 LBS/CU. FT.

ATTRIBUTES PLASTIC, STRIP

ELEMENTS PRESENT ..

COMPOSITION ACLAR, AGI

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.50

DAILY RATE 0.00

BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 GLASS SLIDES

STATE SOLID

DENSITY 160.00 LBS/CU. FT.

ATTRIBUTES GLASS

ELEMENTS PRESENT ..

COMPOSITION SiO2

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.30

DAILY RATE 0.00

BATCH SIZE 0.01

RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 3 BLOOD

STATE LIQUID

DENSITY 65.52 LBS/CU. FT.

ATTRIBUTES ORGANIC

ELEMENTS PRESENT ..

COMPOSITION BLOOD

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.50

DAILY RATE 0.00

BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

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RUN NO.~ ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (H)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 8HEMATOLOGY
*** WASTE SOURCE NO. 3 LEUKOCYTE DYNAMICS

**** WASTE ITEM NO. 4 CHEMICALS - STAIN
STATE SOLID
DENSITY 70.00 LBS/CU. FT.
ATTRIBUTES IN SOLUTION, STAINS
ELEMENTS PRESENT ..
COMPOSITION METHYLENE BLUE, EOSIN
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.00
DAILY RATE 0.00
BATCH SIZE 0.03
RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 5 CAPILLARY TUBES
STATE SOLID
DENSITY 160.00 LBS/CU. FT.
ATTRIBUTES GLASS, TUBES
ELEMENTS PRESENT ..
COMPOSITION SiO2
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.20
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. WASH

**** WASTE ITEM NO. 6 TEST TUBES
STATE SOLID
DENSITY 160.00 LBS/CU. FT.
ATTRIBUTES GLASS, TUBES
ELEMENTS PRESENT ..
COMPOSITION SiO2
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 3.00
DAILY RATE 0.00
BATCH SIZE 0.07
RECLAMATION ACTION ..

** MANDED SPACECRAFT WASTE GENERATION DATA **

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RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (H)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 8HEMATOLOGY

*** *****

**** WASTE SOURCE NO. 4 PLATELET DYNAMICS

DOCUMENT NO. 3.5.1.8.4

REMARKS (1) FOR OPERATIONAL DESCRIPTION SEE DOCUMENT
NC. A- 3.5.1.8.2

***** WASTE ITEM NO. 1 COLOR FILM

STATE SOLID

DENSITY 83.00 LBS/CU. FT.

ATTRIBUTES PLASTIC, STRIP

ELEMENTS PRESENT ..

COMPOSITION ACLAR AGI

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.30

DAILY RATE 0.00

BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 GLASS SLIDES

STATE SOLID

DENSITY 160.00 LBS/CU. FT.

ATTRIBUTES GLASS

ELEMENTS PRESENT ..

COMPOSITION SIG2

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.30

DAILY RATE 0.00

BATCH SIZE 0.01

RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 3 BLOOD

STATE LIQUID

DENSITY 65.52 LBS/CU. FT.

ATTRIBUTES ORGANIC

ELEMENTS PRESENT ..

COMPOSITION BLOOD

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.50

DAILY RATE 0.00

BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. *** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (H)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 8HEMATOLOGY

*** WASTE SOURCE NO. 4 PLATELET DYNAMICS

***** WASTE ITEM NO. 4 CHEMICALS - STAIN

STATE SOLID

DENSITY 70.00 LBS/CU. FT.

ATTRIBUTES IN SOLUTION, STAINS

ELEMENTS PRESENT ..

COMPOSITION METHYLENE BLUE, EOSIN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.00

DAILY RATE 0.00

BATCH SIZE 0.03

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. - 5 CAPILLARY TUBES

STATE SOLID

DENSITY 160.00 LBS/CU. FT.

ATTRIBUTES GLASS, TUBE

ELEMENTS PRESENT ..

COMPOSITION SIC2

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.20

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 6 TEST TUBES

STATE SOLID

DENSITY 160.00 LBS/CU. FT.

ATTRIBUTES GLASS TUBES

ELEMENTS PRESENT ..

COMPOSITION SIC2

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 3.00

DAILY RATE 0.00

BATCH SIZE 0.07

RECLAMATION ACTION .. WASH

S/C SUBSYSTEM BIOMEDICAL RESEARCH (H)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 8HEMATOLOGY

**** WASTE SOURCE NO. 5 LEUKOCYTE MOBILIZATION IN MICE AFTER CHE
MICAL CHALLENGE
DOCUMENT NO. 3.5.1.8.5

REFERENCE NO. 1 .. THE OPTIMIZATION OF THE MANNED ORBITAL L
AB.(MORL)SYSTEM CONCEPT,PHASE IIA, VOL.X
XII & XXIII,EXPERIMENT PROGRAM. DOUGLAS
REPORT NOS.SM46083 AND SM46084 SEPT. 196

REFERENCE NO. 2 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, REVISION NO. 1, SEPTEMBE
R 1, 1969,NASA OMSF.

REFERENCE NO. 3 .. THE DEVELOPMENT OF THE MORL SYSTEM UTILI
ZATIONPOTENTIAL. TASK AREA 1 ANALYSIS OF
SPACE RELATED OBJECTIVES, BOOK 2 DOUGLA
S REPORT NO. SM48808, SEPTEMBER 1965.

***** WASTE ITEM NO. 1 BLOOD
STATE LIQUID
DENSITY 63.60 LBS/CU. FT.
ATTRIBUTES ORGANIC
ELEMENTS PRESENT ..
COMPOSITION BLOOD
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.20
DAILY RATE 0.00
BATCH SIZE 0.02
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 SYRINGE
STATE SOLID
DENSITY 160.00 LBS/CU. FT.
ATTRIBUTES GLASS, TUBES
ELEMENTS PRESENT ..
COMPOSITION SIO2
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 2.00
DAILY RATE 0.00
BATCH SIZE 0.16
RECLAMATION ACTION .. WASH

11/30/70

RUN NO.~** 2 **

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S/C SUBSYSTEM IOMEDICAL RESEARCH (H)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 8HEMATOLOGY

*** WASTE SOURCE NO. 5 LEUKOCYTE MOBILIZATION IN MICE AFTER CHE
MICAL CHALLENGE

**** WASTE ITEM NO. 3 NEEDLE

STATE SOLID

DENSITY 488.00 LBS/CU. FT.

ATTRIBUTES STEEL, TUBE

ELEMENTS PRESENT ..

COMPOSITION FEC

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.07

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. WASH

**** WASTE ITEM NO. 4 CHEMICALS - STAIN

STATE SOLID

DENSITY 56.00 LBS/CU. FT.

ATTRIBUTES IN SOLUTION, STAINS

ELEMENTS PRESENT ..

COMPOSITION METHYLENE BLUE, EOSIN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.05

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 5 LITTER

STATE SOLID

DENSITY 3.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.00

DAILY RATE 0.00

BATCH SIZE 0.08

RECLAMATION ACTION .. N/R

S/C SUBSYSTEM BIOMEDICAL RESEARCH (H)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 8HEMATOLOGY
*** WASTE SOURCE NO. 5 LEUKOCYTE MOBILIZATION IN MICE AFTER CHE
MICAL CHALLENGE

*** WASTE ITEM NO. 6 FILM
STATE SOLID
DENSITY 83.00 LBS/CU. FT.
ATTRIBUTES PLASTIC, STRIP
ELEMENTS PRESENT ..
COMPOSITION ACLAR AGI -
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.30
DAILY RATE 0.00
BATCH SIZE 0.02
RECLAMATION ACTION .. N/R

*** WASTE ITEM NO. 7 GAUZE
STATE SOLID
DENSITY 90.48 LBS/CU. FT.
ATTRIBUTES POROUS
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.00
DAILY RATE 0.00
BATCH SIZE 0.08
RECLAMATION ACTION .. N/R

*** WASTE ITEM NO. 8 DATA SHEETS
STATE SOLID
DENSITY 72.00 LBS/CU. FT.
ATTRIBUTES SHEET
ELEMENTS PRESENT ..
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.10
DAILY RATE 0.00
BATCH SIZE 0.01
RECLAMATION ACTION .. N/R

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RUN NO. *** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (H)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 8HEMATOLOGY
*** WASTE SOURCE NO. 5 LEUKOCYTE MOBILIZATION IN MICE AFTER CHE
MICAL CHALLENGE

***** WASTE ITEM NO. 9 FOOD WASTE
STATE SOLID
DENSITY 96.00 LBS/CU. FT.
ATTRIBUTES PARTICLES
ELEMENTS PRESENT .. C,H,O,N
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.05
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 10 WATER WASTE
STATE LIQUID
DENSITY 62.40 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION WATER
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.15
DAILY RATE 0.00
BATCH SIZE 0.01
RECLAMATION ACTION .. DISTILL

***** WASTE ITEM NO. 11 GLASS SLIDES
STATE SOLID
DENSITY 160.00 LBS/CU. FT.
ATTRIBUTES GLASS SHEET
ELEMENTS PRESENT ..
COMPOSITION SiO2
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.00
DAILY RATE 0.00
BATCH SIZE 0.08
RECLAMATION ACTION .. WASH

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RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (H)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 8HEMATOLOGY
*** WASTE SOURCE NO. 5 LEUKOCYTE MOBILIZATION IN MICE AFTER CHF
MICAL CHALLENGE

***** WASTE ITEM NO. 12 4 ALBINO MICE
STATE SOLID
DENSITY 0.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION LIVING ANIMALS
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.20
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION ..

11/30/70

RUN NO.-** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (H)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 8HEMATOLOGY

**** WASTE SOURCE NO. 6 MAXIMUM RATE OF ERYTHROCYTE PRODUCTION I
N RATS
DOCUMENT NO. 3.5.1.8.6

REFERENCE NO. 1 .. THE OPTIMIZATION OF THE MANNED ORBITAL R
ESEARCH LAB(MORL)SYSTEM CONCEPT, PHASE I
IA,VOL.XXII,XXIII,EXPERIMENT PROGRAM.DOU
GLAS REPORT NOS.SM46083 , SM46084 SEPT.

***** WASTE ITEM NO. 1 BLOOD
STATE LIQUID
DENSITY 63.60 LBS/CU. FT.
ATTRIBUTES ORGANIC
ELEMENTS PRESENT ..
COMPOSITION BLOOD
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.20
DAILY RATE 0.00
BATCH SIZE 0.04
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 SYRINGE
STATE SOLID
DENSITY 160.00 LBS/CU. FT.
ATTRIBUTES GLASS, TUBE
ELEMENTS PRESENT ..
COMPOSITION SIG2
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 2.00
DAILY RATE 0.00
BATCH SIZE 0.40
RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 3 NEEDLE
STATE SOLID
DENSITY 488.00 LBS/CU. FT.
ATTRIBUTES STEEL, TUBE
ELEMENTS PRESENT ..
COMPOSITION FEC
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.07
DAILY RATE 0.00
BATCH SIZE 0.01
RECLAMATION ACTION .. WASH

** MANNED SPACECRAFT WASTE GENERATION DATA **

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RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (H)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 8 HEMATOLOGY
*** WASTE SOURCE NO. 6 MAXIMUM RATE OF ERYTHROCYTE PRODUCTION I
N RATS

*** WASTE ITEM NO. 4 CHEMICALS - STAIN
STATE SOLID
DENSITY 0.00 LBS/CU. FT.
ATTRIBUTES STAINS, IN SOLUTION
ELEMENTS PRESENT ..
COMPOSITION METHYLENE BLUE, EOSIN
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.50
DAILY RATE 0.00
BATCH SIZE 0.10
RECLAMATION ACTION .. N/R

*** WASTE ITEM NO. 5 R/A ISOTOPES
STATE LIQUID
DENSITY 70.00 LBS/CU. FT.
ATTRIBUTES R/A
ELEMENTS PRESENT .. CR51
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.50
DAILY RATE 0.00
BATCH SIZE 0.10
RECLAMATION ACTION .. COLLECT

*** WASTE ITEM NO. 6 FILM
STATE SOLID
DENSITY 83.00 LBS/CU. FT.
ATTRIBUTES PLASTIC, STRIP
ELEMENTS PRESENT ..
COMPOSITION ACLAR, SILVER EMULSION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.30
DAILY RATE 0.00
BATCH SIZE 0.06
RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (H)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 8HEMATOLOGY
**** WASTE SOURCE NO. 6 MAXIMUM RATE OF ERYTHROCYTE PRODUCTION I
N RATS

***** WASTE ITEM NO. 7 GAUZE
STATE SOLID
DENSITY 90.48 LBS/CU. FT.
ATTRIBUTES POROUS
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.00
DAILY RATE 0.00
BATCH SIZE 0.20
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 8 DATA SHEETS
STATE SOLID
DENSITY 72.00 LBS/CU. FT.
ATTRIBUTES SHEET
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.10
DAILY RATE 0.00
BATCH SIZE 0.02
RECLAMATION ACTION .. N/R,

***** WASTE ITEM NO. 9 FOOD WASTE
STATE SOLID
DENSITY 96.00 LBS/CU. FT.
ATTRIBUTES PARTICLES
ELEMENTS PRESENT .. C,H,O,N
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.20
DAILY RATE 0.00
BATCH SIZE 0.04
RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (H)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 8 HEMATOLOGY
*** WASTE SOURCE NO. 6 MAXIMUM RATE OF ERYTHROCYTE PRODUCTION I
N RATS

***** WASTE ITEM NO. 10 WATER WASTE
STATE LIQUID
DENSITY 62.40 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION WATER
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.60
DAILY RATE 0.00
BATCH SIZE 0.12
RECLAMATION ACTION .. DISTILL

***** WASTE ITEM NO. 11 GLASS SLIDES
STATE SOLID
DENSITY 160.00 LBS/CU. FT.
ATTRIBUTES GLASS, SHEET
ELEMENTS PRESENT ..
COMPOSITION SiO2
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.00
DAILY RATE 0.00
BATCH SIZE 0.20
RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 12 CENTRIFUGE TUBES
STATE SOLID
DENSITY 160.00 LBS/CU. FT.
ATTRIBUTES GLASS, TUBES
ELEMENTS PRESENT ..
COMPOSITION SiO2
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 2.00
DAILY RATE 0.00
BATCH SIZE 0.40
RECLAMATION ACTION .. WASH

11/30/70

RUN NO. ** 2 **

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S/C SLBSYSTEM BIOMEDICAL RESEARCH (H)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 8HEMATOLOGY

*** WASTE SOURCE NO. 6 MAXIMUM RATE OF ERYTHROCYTE PRODUCTION I
N RAIS

***** WASTE ITEM NO. 13 3 ALBINO MICE

STATE SOLID

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION LIVING ANIMALS

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.20

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 14 1 ALBINO MOUSE

STATE SOLID

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES ANIMAL CARCASS

ELEMENTS PRESENT ..

COMPOSITION PROTEIN, MINERAL

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.00

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (H)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 8HEMATOLOGY

*** WASTE SOURCE NO. 7 WOUND HEALING

DOCUMENT NO. 3.5.1.8.7

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, REVISION NO. 1, SEPTEMBER
1, 1969, NASA OMSF.

REFERENCE NO. 2 .. MEDICAL REQUIREMENTS IN SUPPORT OF LONG
DURATION MANNED SPACE FLIGHT, BELLCOMM I
AC. REPORT NO. TR 67-710-1, 1967

***** WASTE ITEM NO. 1 BLOOD

STATE LIQUID

DENSITY 63.60 LBS/CU. FT.

ATTRIBUTES ORGANIC

ELEMENTS PRESENT ..

COMPOSITION BLOOD

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 0.10

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 SYRINGE

STATE SOLID

DENSITY 160.00 LBS/CU. FT.

ATTRIBUTES GLASS, TUBE

ELEMENTS PRESENT ..

COMPOSITION SiO2

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 1.00

DAILY RATE 0.00

BATCH SIZE 0.02

RECLAMATION ACTION .. WASH

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM BIOMEDICAL-RESEARCH (H)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 8HEMATOLOGY

*** WASTE SOURCE NO. 7 WOUND HEALING

***** WASTE ITEM NO. 3 NEEDLE

STATE SOLID

DENSITY 488.00 LBS/CU. FT.

ATTRIBUTES STEEL, TUBE

ELEMENTS PRESENT ..

COMPOSITION FEC

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

0.05

DAILY RATE

0.00

BATCH SIZE

0.00

RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 4 CHEMICALS FOR WBC COUNT

STATE LIQUID, SOLID

DENSITY 62.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION CH3COOH

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

0.10

DAILY RATE

0.00

BATCH SIZE

0.00

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 5 LITTER

STATE SOLID

DENSITY 43.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

8.00

DAILY RATE

0.00

BATCH SIZE

0.20

RECLAMATION ACTION .. N/R

S/C SUBSYSTEM BIOMEDICAL RESEARCH (H)
 GROUP KEY 3.5.1 ~

** EQUIPMENT/EXPERIMENT NO. 8HEMATOLOGY

*** WASTE SOURCE NO. 7 WOUND HEALING

***** WASTE ITEM NO. 6 FILM

STATE SOLID

DENSITY 83.00 LBS/CU. FT.

ATTRIBUTES PLASTIC, STRIP

ELEMENTS PRESENT ..

COMPOSITION ACLAR AGI

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

0.30

DAILY RATE

0.00

BATCH SIZE

0.00

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 7 GAUZE

STATE SOLID

DENSITY 90.48 LBS/CU. FT.

ATTRIBUTES POROUS

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

0.10

DAILY RATE

0.00

BATCH SIZE

0.00

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 8 DATA SHEETS

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES SHEET

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

1.00

DAILY RATE

0.00

BATCH SIZE

0.00

RECLAMATION ACTION .. N/R

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0.40

0.30

0.00

** MANNED SPACECRAFT WASTE GENERATION DATA **

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RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (H)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 8HEMATOLOGY

*** WASTE SOURCE NO. 7 WOUND HEALING

***** WASTE ITEM NO. 12 CHEMICALS - STAIN

STATE SOLID

DENSITY 62.00 LBS/CU. FT.

ATTRIBUTES IN SOLUTION, STAINS

ELEMENTS PRESENT ..

COMPOSITION METHYLENE BLUE, EOSIN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.10

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. COLLECT EXCESS

***** WASTE ITEM NO. 13 6 MINIATURE SWINE

STATE SOLID

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 12.00

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION ..

S/C SUBSYSTEM BIOMEDICAL RESEARCH (H)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 8HEMATOLOGY

**** WASTE SOURCE NO. 8 BLOOD COAGULATION AND HEMOSTATIC FUNCTIO
N
DOCUMENT NO. 3.5.1.8.8

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, REVISION NO. 1, SEPTEMBE
R 1, 1969, NASA OMSF.

REFERENCE NO. 2 .. S.P. VINDGRAD, MEDICAL ASPECTS OF AN ORB
ITING RESEARCH LABORATORY, SPACE MEDICAL
ADVISORY GROUP STUDY, NASA REPORT NO. S
P-66, 1964

**** ** WASTE ITEM NO. 1 COLOR FILM
STATE SOLID
DENSITY 83.00 LBS/CU. FT.
ATTRIBUTES PLASTIC, STRIP
ELEMENTS PRESENT ..
COMPOSITION ACLAR
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.50
DAILY RATE 0.00
BATCH SIZE 0.01
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 GLASS SLIDES
STATE SOLID
DENSITY 160.00 LBS/CU. FT.
ATTRIBUTES GLASS
ELEMENTS PRESENT ..
COMPOSITION SIC2
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.10
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. WASH

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (H) .
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 8HEMATOLOGY
*** WASTE SOURCE NO. 8 BLOOD COAGULATION AND HEMOSTATIC FUNCTIO
N

***** WASTE ITEM NO. 3 BLOOD
STATE LIQUID
DENSITY 65.52 LBS/CU. FT.
ATTRIBUTES ORGANIC
ELEMENTS PRESENT ..
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 2.00
DAILY RATE 0.00
BATCH SIZE 0.05
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 4 CHEMICALS - STAIN
STATE SOLID
DENSITY 70.00 LBS/CU. FT.
ATTRIBUTES IN SOLUTION, STAINS
ELEMENTS PRESENT ..
COMPOSITION METHYLENE BLUE, EOSIN
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.20
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION ..

***** WASTE ITEM NO. 5 TEST TUBES
STATE SOLID
DENSITY 160.00 LBS/CU. FT.
ATTRIBUTES GLASS, TUBE
ELEMENTS PRESENT ..
COMPOSITION SiO2
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 3.00
DAILY RATE 0.00
BATCH SIZE 0.07
RECLAMATION ACTION .. WASH

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM BIOMEDICAL RESEARCH (H)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 8HEMATOLOGY

*** WASTE SOURCE NO. 8 BLCOD COAGULATION AND HEMOSTATIC FUNCTIO
N

*** *****

*** ** WASTE ITEM NO. 6 SYRINGE

STATE SOLID

DENSITY 160.00 LBS/CU. FT.

ATTRIBUTES GLASS

ELEMENTS PRESENT ..

COMPOSITION SIC2

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

2.00

DAILY RATE

0.00

BATCH SIZE

0.07

RECLAMATION ACTION .. WASH

*** ** WASTE ITEM NO. 7 NEEDLES

STATE SOLID

DENSITY 488.00 LBS/CU. FT.

ATTRIBUTES STEEL

ELEMENTS PRESENT ..

COMPOSITION FEC

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

0.10

DAILY RATE

0.00

BATCH SIZE

0.00

RECLAMATION ACTION .. WASH

S/C SUBSYSTEM BIOMEDICAL RESEARCH (H)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 8HEMATOLOGY

**** WASTE SOURCE NO. 9 CYTOGENIC STUDIES

DOCUMENT NO. 3.5.1.8.9

REFERENCE NO. 1 .. IMBLMS

***** WASTE ITEM NO. 1 COLOR FILM

STATE SOLID

DENSITY 83.00 LBS/CU. FT.

ATTRIBUTES PLASTIC, STRIP

ELEMENTS PRESENT ..

COMPOSITION ACLAR AGI

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

0.50

DAILY RATE

0.00

BATCH SIZE

0.01

RECLAMATION ACTION ..

***** WASTE ITEM NO. 2 GLASS SLIDES

STATE SOLID

DENSITY 160.00 LBS/CU. FT.

ATTRIBUTES GLASS

ELEMENTS PRESENT ..

COMPOSITION SiO2

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

0.10

DAILY RATE

0.00

BATCH SIZE

0.00

RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 3 BLOOD

STATE LIQUID

DENSITY 65.52 LBS/CU. FT.

ATTRIBUTES ORGANIC

ELEMENTS PRESENT ..

COMPOSITION BLOOD

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

0.10

DAILY RATE

0.00

BATCH SIZE

0.00

RECLAMATION ACTION .. N/R

S/C SUBSYSTEM BIOMEDICAL RESEARCH (H)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 8HEMATOLOGY

*** WASTE SOURCE NO. 9 CYTOGENIC STUDIES

*** WASTE ITEM NO. 4 CHEMICALS - STAIN

STATE SOLID

DENSITY 70.00 LBS/CU. FT.

ATTRIBUTES IN SOLUTION

ELEMENTS PRESENT ..

COMPOSITION METHYLENE BLUE, EOSIN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.20

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

*** WASTE ITEM NO. 5 TEST TUBES

STATE SOLID

DENSITY 160.00 LBS/CU. FT.

ATTRIBUTES GLASS

ELEMENTS PRESENT ..

COMPOSITION SIC2

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 3.00

DAILY RATE 0.00

BATCH SIZE 0.07

RECLAMATION ACTION .. WASH

*** WASTE ITEM NO. 6 SYRINGE

STATE SOLID

DENSITY 160.00 LBS/CU. FT.

ATTRIBUTES GLASS

ELEMENTS PRESENT ..

COMPOSITION SIC2

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 2.00

DAILY RATE 0.00

BATCH SIZE 0.05

RECLAMATION ACTION ..

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (H)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 8HEMATOLOGY

**** WASTE SOURCE NO. 9 CYTOGENIC STUDIES

***** WASTE ITEM NO. 7 NEEDLES

STATE SOLID

DENSITY 488.00 LBS/CU. FT.

ATTRIBUTES STEEL

ELEMENTS PRESENT ..

COMPOSITION FEC

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 0.10

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. WASH

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (H)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 8HEMATOLOGY

*** WASTE SOURCE NO. 10 BLOOD VOLUME AND RED CELL LIFE SPAN

DOCUMENT NO. 3.5.1.8.10

REFERENCE NO. 1 .. IMBLMS

***** WASTE ITEM NO. 1 BLOOD
STATE LIQUID
DENSITY 63.60 LBS/CU. FT.
ATTRIBUTES ORGANIC
ELEMENTS PRESENT ..
COMPOSITION BLOOD
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.50
DAILY RATE 0.00
BATCH SIZE 0.25
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 SYRINGE
STATE SOLID
DENSITY 160.00 LBS/CU. FT.
ATTRIBUTES GLASS, TUBE
ELEMENTS PRESENT ..
COMPOSITION SIC2
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 2.00
DAILY RATE 0.00
BATCH SIZE 0.30
RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 3 NEEDLE
STATE SOLID
DENSITY 488.00 LBS/CU. FT.
ATTRIBUTES STEEL, TUBE
ELEMENTS PRESENT ..
COMPOSITION FEC
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.10
DAILY RATE 0.00
BATCH SIZE 0.02
RECLAMATION ACTION .. WASH

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (H)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 8HEMATOLOGY

**** WASTE SOURCE NO. 10 BLCOD VOLUME AND RED CELL LIFE SPAN

***** WASTE ITEM NO. 4 CHEMICALS, R/A ISOTOPES

STATE LIQUID, SOLID

DENSITY 250.00 LBS/CU. FT.

ATTRIBUTES R/A

ELEMENTS PRESENT ..

COMPOSITION DFP32

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.10

DAILY RATE 0.00

BATCH SIZE 0.02

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 5 PLANCHET

STATE SOLID

DENSITY 168.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT .. AL

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.10

DAILY RATE 0.00

BATCH SIZE 0.02

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 6 LANCET

STATE SOLID

DENSITY 488.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION FEC

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.20

DAILY RATE 0.00

BATCH SIZE 0.03

RECLAMATION ACTION .. N/R

** MANNEO SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM BIOMEDICAL RESEARCH (H)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 8HEMATOLOGY

*** WASTE SOURCE NO. 10 BLCCD VOLUME AND RED CELL LIFE SPAN

***** WASTE ITEM NO. 7 GAUZE

STATE SOLID

DENSITY 90.48 LBS/CU. FT.

ATTRIBUTES POROUS

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 0.10

DAILY RATE 0.00

BATCH SIZE 0.02

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 8 CAPILLARY TUBES

STATE SOLID

DENSITY 160.00 LBS/CU. FT.

ATTRIBUTES GLASS, TUBE

ELEMENTS PRESENT ..

COMPOSITION SiO2

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 0.25

DAILY RATE 0.00

BATCH SIZE 0.04

RECLAMATION ACTION ..

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (I)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 9 MICROBIOLOGY AND IMMUNOLOGY

ASSOCIATED FPE NUMBER ... 5.13
S/C AREAS MICROBIOLOGY LABORATORY
MEDICAL LABORATORY

**** WASTE SOURCE NO. 1 MICROBIOLOGICAL EVALUATION OF SURFACES

DOCUMENT NO. 3.5.1.9.1

***** WASTE ITEM NO. 1 MEDIA IN PLATES A)REGULAR
STATE SOLID
DENSITY 34.50 LBS/CU. FT.
ATTRIBUTES GEL CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE,ORGANIC
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 234.00
DAILY RATE 0.00
BATCH SIZE 4.50
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 MEDIA IN PLATES B)RODAC
STATE SOLID
DENSITY 43.37 LBS/CU. FT.
ATTRIBUTES GEL CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE,ORGANIC
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 208.00
DAILY RATE 0.00
BATCH SIZE 4.00
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 3 MEDIA IN TUBES
STATE SOLID
DENSITY 86.40 LBS/CU. FT.
ATTRIBUTES GEL CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE,ORGANIC
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 32.84
DAILY RATE 0.00
BATCH SIZE 0.67
RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM BIOMEDICAL RESEARCH (I)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 9 MICROBIOLOGY AND IMMUNOLOGY
*** WASTE SOURCE NO. 1 MICROBIOLOGICAL EVALUATION OF SURFACES
*** *****

***** WASTE ITEM NO. 4 SYRINGES
STATE SOLID
DENSITY 35.60 LBS/CU. FT.
ATTRIBUTES PLASTIC CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE, ORGANIC
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.56
DAILY RATE 0.00
BATCH SIZE 0.30
RECLAMATION ACTION .. STERILIZE

***** WASTE ITEM NO. 5 SWABS
STATE SOLID
DENSITY 0.30 LBS/CU. FT.
ATTRIBUTES WOOD CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION WOOD AND CA ALGINATE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.31
DAILY RATE 0.00
BATCH SIZE 0.06
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 6 LOOPS
STATE SOLID
DENSITY 1.70 LBS/CU. FT.
ATTRIBUTES PLASTIC CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.14
DAILY RATE 0.00
BATCH SIZE 102.00
RECLAMATION ACTION .. STERILIZE

S/C SUBSYSTEM BIOMEDICAL RESEARCH (1)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 9 MICROBIOLOGY AND IMMUNOLOGY
*** WASTE SOURCE NO. 1 MICROBIOLOGICAL EVALUATION OF SURFACES
*** *****

***** WASTE ITEM NO. 7 STAINING PAPER
STATE SOLID
DENSITY 0.30 LBS/CU. FT.
ATTRIBUTES PAPER CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.14
DAILY RATE 0.00
BATCH SIZE 0.02
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 8 SLIDES
STATE SOLID
DENSITY 190.80 LBS/CU. FT.
ATTRIBUTES GLASS CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION BOROSILICATES
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.52
DAILY RATE 0.00
BATCH SIZE 0.01
RECLAMATION ACTION .. STERILIZE

***** WASTE ITEM NO. 9 IMMERSION OIL AND LENS PAPER
STATE SOLID
DENSITY 0.10 LBS/CU. FT.
ATTRIBUTES PAPER AND OIL CONTAMINATION
ELEMENTS PRESENT ..
COMPOSITION OIL AND CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.31
DAILY RATE 0.00
BATCH SIZE 0.06
RECLAMATION ACTION .. N/R

S/C SUBSYSTEM BIOMEDICAL RESEARCH (I)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 9 MICROBIOLOGY AND IMMUNOLOGY
*** WASTE SOURCE NO. 1 MICROBIOLOGICAL EVALUATION OF SURFACES

*** WASTE ITEM NO. 10 BACTERICIDE
STATE SOLID
DENSITY 5.40 LBS/CU. FT.
ATTRIBUTES GEL CONTAMINATION
ELEMENTS PRESENT ..
COMPOSITION 17% ZEPHIRAN AND AGAR
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 24.00
DAILY RATE 0.00
BATCH SIZE 2.00
RECLAMATION ACTION .. N/R

*** WASTE ITEM NO. 11 AUTOCLAVE WASTE WATER
STATE VAPOR
DENSITY 60.00 LBS/CU. FT.
ATTRIBUTES STEAM 250 DEG. F
ELEMENTS PRESENT ..
COMPOSITION WATER AND IMPURITIES
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 183.00
DAILY RATE 0.50
BATCH SIZE 0.00
RECLAMATION ACTION .. CONDENSE, STRAIN

*** WASTE ITEM NO. 12 PACKAGING MATERIAL
STATE SOLID
DENSITY 0.08 LBS/CU. FT.
ATTRIBUTES PLASTIC CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYETHYLENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 13.00
DAILY RATE 0.00
BATCH SIZE 0.25
RECLAMATION ACTION .. REUSE AS IS

S/C SUBSYSTEM BIOMEDICAL RESEARCH (I)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 9 MICROBIOLOGY AND IMMUNOLOGY
*** WASTE SOURCE NO. 1 MICROBIOLOGICAL EVALUATION OF SURFACES

***** WASTE ITEM NO. 13 DEFECTIVE MICROSCOPE LAMP
STATE SOLID
DENSITY 86.40 LBS/CU. FT.
ATTRIBUTES GLASS DEFECTIVE
ELEMENTS PRESENT ..
COMPOSITION BORO SILICATES
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.06
DAILY RATE 0.00
BATCH SIZE 0.02
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 14 CIL BOTTLE AND DROPPER
STATE SOLID
DENSITY 0.00 LBS/CU. FT.
ATTRIBUTES GLASS EMPTY
ELEMENTS PRESENT ..
COMPOSITION BORO SILICATES
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.15
DAILY RATE 0.00
BATCH SIZE 0.05
RECLAMATION ACTION .. N/R

S/C SUBSYSTEM BIOMEDICAL RESEARCH (I)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 9 MICROBIOLOGY AND IMMUNOLOGY

*** WASTE SOURCE NO. 2 MICROBIAL PROFILES OF CREW MEMBERS

DOCUMENT NO. 3.5.1.9.2

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, REVISION NO. 1, NASA DMS
F, SEPTEMBER 1, 1969.

REFERENCE NO. 2 .. BBL MANUAL OF PRODUCTS AND LABORATORY PR
OCEDURES, 5TH EDITION, 1969, RHODE, PAUL
A., ED. (BBL)

*** WASTE ITEM NO. 1 MEDIA IN PLATES A) REGULAR (154/WEEK)
STATE SOLID
DENSITY 34.50 LBS/CU. FT.
ATTRIBUTES GEL CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION ORGANIC AND POLYSTYRENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 754.00
DAILY RATE 0.00
BATCH SIZE 14.50
RECLAMATION ACTION .. NONE

*** WASTE ITEM NO. 2 MEDIA IN PLATES B) RODAC
STATE SOLID
DENSITY 43.37 LBS/CU. FT.
ATTRIBUTES GEL CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION ORGANIC AND POLYSTYRENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 46.80
DAILY RATE 0.00
BATCH SIZE 0.90
RECLAMATION ACTION .. NONE

S/C SUBSYSTEM BIOMEDICAL RESEARCH (I)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 9 MICROBIOLOGY AND IMMUNOLOGY
**** WASTE SOURCE NO. 2 MICROBIAL PROFILES OF CREW MEMBERS

***** WASTE ITEM NO. 3 TUBED MEDIA A) LIQUID (48/WEEK)
STATE SOLID
DENSITY 86.40 LBS/CU. FT.
ATTRIBUTES GEL CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION ORGANIC AND POLYSTYRENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 62.40
DAILY RATE 0.00
BATCH SIZE 1.20
RECLAMATION ACTION .. NONE

***** WASTE ITEM NO. 4 TUBED MEDIA B) SOLID (108/WEEK)
STATE SOLID
DENSITY 86.40 LBS/CU. FT.
ATTRIBUTES GEL CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION ORGANIC AND POLYSTYRENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 140.40
DAILY RATE 0.00
BATCH SIZE 2.70
RECLAMATION ACTION .. NONE

***** WASTE ITEM NO. 5 TONGUE DEPRESSORS (6/WEEK)
STATE SOLID
DENSITY 0.30 LBS/CU. FT.
ATTRIBUTES WOOD CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION WOOD
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.78
DAILY RATE 0.00
BATCH SIZE 0.01
RECLAMATION ACTION .. NONE

S/C SUBSYSTEM BIOMEDICAL RESEARCH (I)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 9 MICROBIOLOGY AND IMMUNOLOGY
*** WASTE SOURCE NO. 2 MICROBIAL PROFILES OF CREW MEMBERS

***** WASTE ITEM NO. 6 SWABS (32/WEEK)
STATE SOLID
DENSITY 0.30 LBS/CU. FT.
ATTRIBUTES WOOD CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION WOOD, CA ALGINATE
GENERATION DATA QUANTITY (LBS)
EXPT. TOTAL 4.16
DAILY RATE 0.00
BATCH SIZE 0.08
RECLAMATION ACTION .. NONE

***** WASTE ITEM NO. 7 SYRINGE (6/WEEK)
STATE SOLID
DENSITY 35.60 LBS/CU. FT.
ATTRIBUTES PLASTIC CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE
GENERATION DATA QUANTITY (LBS)
EXPT. TOTAL 41.60
DAILY RATE 0.00
BATCH SIZE 0.38
RECLAMATION ACTION .. NONE

***** WASTE ITEM NO. 8 INNOCULATING LOOPS (54/WEEK)
STATE SOLID
DENSITY 1.70 LBS/CU. FT.
ATTRIBUTES PLASTIC CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE
GENERATION DATA QUANTITY (LBS)
EXPT. TOTAL 7.28
DAILY RATE 0.00
BATCH SIZE 0.14
RECLAMATION ACTION .. NONE

S/C SUBSYSTEM BIOMEDICAL RESEARCH (M)
GROUP KEY 3.5.1 -

** EQUIPMENT/EXPERIMENT NO. 9 MICROBIOLOGY AND IMMUNOLOGY
**** WASTE SOURCE NO. 2 MICROBIAL PROFILES OF CREW MEMBERS

***** WASTE ITEM NO. 9 INOCULATING NEEDLES
STATE SOLID
DENSITY 1.70 LBS/CU. FT.
ATTRIBUTES PLASTIC CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 7.28
DAILY RATE 0.00
BATCH SIZE 0.14
RECLAMATION ACTION .. NONE

***** WASTE ITEM NO. 10 EMPTY SENSITIVITY DISC CONTAINERS
STATE SOLID
DENSITY 1.70 LBS/CU. FT.
ATTRIBUTES PLASTIC CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 12.20
DAILY RATE 0.00
BATCH SIZE 0.10
RECLAMATION ACTION .. NONE

***** WASTE ITEM NO. 11 EMPTY DISC CONTAINERS
STATE SOLID
DENSITY 53.64 LBS/CU. FT.
ATTRIBUTES PLASTIC CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.67
DAILY RATE 0.00
BATCH SIZE 0.06
RECLAMATION ACTION .. NONE

S/C SUBSYSTEM BIOMEDICAL RESEARCH (I)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 9 MICROBIOLOGY AND IMMUNOLOGY

*** * WASTE SOURCE NO. 2 MICROBIAL PROFILES OF CREW MEMBERS

*** ** WASTE ITEM NO. 12 MICROSCOPE SLIDES

STATE SOLID

DENSITY 190.80 LBS/CU. FT.

ATTRIBUTES GLASS CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION BOROSILICATES

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 2.08

DAILY RATE 0.00

BATCH SIZE 0.04

RECLAMATION ACTION .. NONE

*** ** WASTE ITEM NO. 13 STAINING PAPER

STATE SOLID

DENSITY 0.30 LBS/CU. FT.

ATTRIBUTES PAPER CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 3.12

DAILY RATE 0.00

BATCH SIZE 0.06

RECLAMATION ACTION .. NONE

*** ** WASTE ITEM NO. 14 FORCEPS

STATE SOLID

DENSITY 490.00 LBS/CU. FT.

ATTRIBUTES METAL CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION STEEL

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.03

DAILY RATE 0.00

BATCH SIZE 0.03

RECLAMATION ACTION .. STERILIZE

S/C SUBSYSTEM BIOMEDICAL_RESEARCH (I)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 9 MICROBIOLOGY AND IMMUNOLOGY
**** WASTE SOURCE NO. 2 MICROBIAL PROFILES OF CREW MEMBERS

**** WASTE ITEM NO. 15 PACKAGING MATERIAL
STATE SOLID
DENSITY 0.08 LBS/CU. FT.
ATTRIBUTES PLASTIC/PAPER CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYVINYL, POLYETHYLENE, AND CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 7.50
DAILY RATE 0.00
BATCH SIZE 0.15
RECLAMATION ACTION .. NONE

S/C SUBSYSTEM BIOMEDICAL RESEARCH (I) ,
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 9 MICROBIOLOGY AND IMMUNOLOGY

*** WASTE SOURCE NO. 3 AIR SAMPLING FOR MICROORGANISMS

DOCUMENT NO. 3.5.1.9.3

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSION REVISION DATED SEPTEMBER 1
968, NASA OFFICE OF MANNED SPACE FLIGHT

***** WASTE ITEM NO. 1 MEDIA IN PLATES
STATE SOLID
DENSITY 34.30 LBS/CU. FT.
ATTRIBUTES GEL CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION ORGANIC, POLYSTYRENE
GENERATION DATA ... QUANTITY (LBS)
- EXPT. TOTAL 115.00
DAILY RATE 0.71
BATCH SIZE 0.00
RECLAMATION ACTION .. NONE

~***** WASTE ITEM NO. 2 INACCULATING LOOPS
STATE SOLID
DENSITY 1.70 LBS/CU. FT.
ATTRIBUTES PLASTIC CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYSTYRENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.60
DAILY RATE 0.01
BATCH SIZE 0.00
RECLAMATION ACTION .. NONE

***** WASTE ITEM NO. 3 STAINING PAPER
STATE SOLID
DENSITY 0.30 LBS/CU. FT.
ATTRIBUTES PAPER CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE, STAIN
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.60
DAILY RATE 0.02
BATCH SIZE 0.00
RECLAMATION ACTION .. NONE

S/C SUBSYSTEM BIOMEDICAL RESEARCH (I)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 9 MICROBIOLOGY AND IMMUNOLOGY
**** WASTE SOURCE NO. 3 AIR SAMPLING FOR MICROORGANISMS

***** WASTE ITEM NO. 4 MICROSCOPE SLIDE
STATE SOLID
DENSITY 190.80 LBS/CU. FT.
ATTRIBUTES GLASS CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION BOROSILICATES
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.41
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. NONE

***** WASTE ITEM NO. 5 PACKAGING MATERIAL
STATE SOLID
DENSITY 0.08 LBS/CU. FT.
ATTRIBUTES PLASTIC CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION POLYETHYLENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 2.60
DAILY RATE 0.40
BATCH SIZE 0.00
RECLAMATION ACTION .. NONE

S/C SUBSYSTEM BIOMEDICAL RESEARCH (I)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 9 MICROBIOLOGY AND IMMUNOLOGY

*** WASTE SOURCE NO. 4 IMMUNOLOGICAL SURVEY OF CREW MEMBERS

DOCUMENT NO. 3.5.1.9.4

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, REVISION NO. 1, NASA OMS
F, SEPTEMBER 1, 1969.

***** WASTE ITEM NO. 1 SYRINGES

STATE SOLID
DENSITY 35.60 LBS/CU. FT.
ATTRIBUTES PLASTIC CONTAMINATION
ELEMENTS PRESENT ..
COMPOSITION POLYETHYLENE, ORGANIC MATERIAL
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 3.12
DAILY RATE 0.00
BATCH SIZE 0.06

RECLAMATION ACTION .. NONE

***** WASTE ITEM NO. 2 GAUZE PADS, ALCOHOL

STATE SOLID
DENSITY 0.17 LBS/CU. FT.
ATTRIBUTES GAUZE CONTAMINATED
ELEMENTS PRESENT ..
COMPOSITION COTTON, ALCOHOL
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.13
DAILY RATE 0.00
BATCH SIZE 0.02

RECLAMATION ACTION .. NONE

***** WASTE ITEM NO. 3 BAND-AIDS

STATE SOLID
DENSITY 0.08 LBS/CU. FT.
ATTRIBUTES GAUZE, PLASTIC
ELEMENTS PRESENT ..
COMPOSITION COTTON, POLYETHYLENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.31
DAILY RATE 0.00
BATCH SIZE 0.01

RECLAMATION ACTION .. NONE

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM BIOMEDICAL RESEARCH (I)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 9 MICROBIOLOGY AND IMMUNOLOGY
*** WASTE SOURCE NO. 4 IMMUNOLOGICAL SURVEY OF CREW MEMBERS

***** WASTE ITEM NO. 4 PACKAGING MATERIAL
STATE SOLID
DENSITY C.08 LBS/CU. FT.
ATTRIBUTES PAPER, PLASTIC
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE, POLYETHYLENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.31
DAILY RATE 0.00
BATCH SIZE 0.01
RECLAMATION ACTION .. NONE

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A)
GROUP KEY 3.5.2

BASIC FUNCTION PERFORM MISSION TASKS
-- FUNCTIONAL REQUIREMENT BIOTECHNOLOGY AND HUMAN RESEARCH

** EQUIPMENT/EXPERIMENT NO. 1 SPACE SYSTEMS HUMAN FACTORS

ASSOCIATED FPE NUMBER ...
S/C AREAS LABORATORY
ALL AREAS
AD LIB
COMMUNICATIONS
RECREATION

*** WASTE SOURCE NO. 1 RESTRAINT AND FINE-FORCE GENERATION

DOCUMENT NO. 3.5.2.1.1

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, REVISION NO.1, SEPTEMBER
1, 1969, NASA OMSF.

REFERENCE NO. 2 .. REPT. ON THE DEVELOPMENT OF THE MANNED OR
BITAL RESEARCH LAB (MORL) SYSTEM UTILIZATION
ON POTENTIAL TASK AREA 1 ANALYSIS OF SPA
CE REL. OBJ. BOOK 2 DOUGLAS REPT. SM48808, S

***** WASTE ITEM NO. 1 RECORDING TAPE
STATE SOLID
DENSITY 105.00 LBS/CU. FT.
ATTRIBUTES PLASTIC TAPE
ELEMENTS PRESENT .. FE, O2
COMPOSITION MYLAR, POLYETHYLENE, TEREPHTHALATE RESIN
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 10.00
DAILY RATE 0.00
BATCH SIZE 0.20
RECLAMATION ACTION .. ERASE

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 1 SPACE SYSTEMS HUMAN FACTORS
**** WASTE SOURCE NO. 1 RESTRAINT AND FINE-FORCE GENERATION

***** WASTE ITEM NO. 2 FILM, STILL, CINE
STATE SOLID
DENSITY 83.00 LBS/CU. FT.
ATTRIBUTES PLASTIC STRIP
ELEMENTS PRESENT .. AG, I
COMPOSITION ACRYL
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.50
DAILY RATE 0.00
BATCH SIZE 0.03
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 3 DATA SHEETS
STATE SOLID
DENSITY 72.00 LBS/CU. FT.
ATTRIBUTES PAPER
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.30
DAILY RATE 0.00
BATCH SIZE 0.01
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 4 QUESTIONAIRES
STATE SOLID
DENSITY 72.00 LBS/CU. FT.
ATTRIBUTES PAPER
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.40
DAILY RATE 0.00
BATCH SIZE 0.01
RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 1SPACE SYSTEMS HUMAN FACTORS
*** WASTE SOURCE NO. 1 RESTRAINT AND FINE-FORCE GENERATION

*** WASTE ITEM NO. 5 INSTRUMENTS
STATE SOLID
DENSITY 166.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION VARIED
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 5.00
DAILY RATE 0.00
BATCH SIZE 0.10
RECLAMATION ACTION .. REPAIR

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A)
GROUP KEY 3.5.2 -

** EQUIPMENT/EXPERIMENT NO. 1SPACE SYSTEMS HUMAN FACTORS

*** WASTE SOURCE NO. 2 RESTRAINT AND GROSS FORCE GENERATION

DOCUMENT NO. 3.5.2.1.2

REMARKS (1) FOR OPERATIONAL DESCRIPTION SEE DOCUMENT
NC.A-3.5.2.1.1

*** ** WASTE ITEM NO. 1 RECORDING TAPE

STATE SOLID

DENSITY 105.00 LBS/CU. FT.

ATTRIBUTES PLASTIC TAPE

ELEMENTS PRESENT .. FE,O2

COMPOSITION MYLAR,POLYETHYLENE,TEREPHTHALATE RESIN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 10.00

DAILY RATE 0.00

BATCH SIZE 0.20

RECLAMATION ACTION .. ERASE

*** ** WASTE ITEM NO. 2 FILM, STILL CINE

STATE SOLID

DENSITY 83.00 LBS/CU. FT.

ATTRIBUTES PLASTIC STRIP

ELEMENTS PRESENT .. AG,I

COMPOSITION ACLAR

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.50

DAILY RATE 0.00

BATCH SIZE 0.03

RECLAMATION ACTION .. N/R

*** ** WASTE ITEM NO. 3 DATA SHEETS

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.30

DAILY RATE 0.00

BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A)
GROUP KEY 3.5.2 -

** EQUIPMENT/EXPERIMENT NO. 1SPACE SYSTEMS HUMAN FACTORS
**** WASTE SOURCE NO. 2 RESTRAINT AND GROSS FORCE GENERATION

***** WASTE ITEM NO. 4 QUESTIONAIRES
STATE SOLID
DENSITY 72.00 LBS/CU. FT.
ATTRIBUTES PAPER
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.40
DAILY RATE 0.00
BATCH SIZE 0.01
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 5 INSTRUMENTS
STATE SOLID
DENSITY 166.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION VARIED
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 5.00
DAILY RATE 0.00
BATCH SIZE 0.10
RECLAMATION ACTION .. REPAIR

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 1 SPACE SYSTEMS HUMAN FACTORS

*** WASTE SOURCE NO. 3 PSYCHOMOTOR FUNCTIONS

DOCUMENT NO. 3.5.2.1.3

REMARKS (1) FOR OPERATIONAL DESCRIPTION SEE DOCUMENT
NC.A-3.5.2.1.1

***' WASTE ITEM NO. 1 RECORDING TAPE

STATE SOLID

DENSITY 105.00 LBS/CU. FT.

ATTRIBUTES PLASTIC TAPE

ELEMENTS PRESENT .. FE, O₂

COMPOSITION MYLAR, POLYETHYLENE, TEREPHTHALATE RESIN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 10.00

DAILY RATE 0.00

BATCH SIZE 0.60

RECLAMATION ACTION .. ERASE

*** WASTE ITEM NO. 2 FILM, STILL, CINE

STATE SOLID

DENSITY 83.00 LBS/CU. FT.

ATTRIBUTES PLASTIC STRIP

ELEMENTS PRESENT .. AG, I

COMPOSITION ACLAR

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.50

DAILY RATE 0.00

BATCH SIZE 0.08

RECLAMATION ACTION .. N/R

*** WASTE ITEM NO. 3 DATA SHEETS

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.30

DAILY RATE 0.00

BATCH SIZE 0.02

RECLAMATION ACTION .. N/R

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 1 SPACE SYSTEMS HUMAN FACTORS
*** WASTE SOURCE NO. 3 PSYCHOMOTOR FUNCTIONS

***** WASTE ITEM NO. 4 QUESTIONAIRES
STATE N/R
DENSITY 72.00 LBS/CU. FT.
ATTRIBUTES PAPER
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.40
DAILY RATE 0.00
BATCH SIZE 0.02
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 5 INSTRUMENTS
STATE SOLID
DENSITY 166.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION VARIED
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 10.00
DAILY RATE 0.00
BATCH SIZE 0.60
RECLAMATION ACTION .. REPAIR

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 1SPACE SYSTEMS HUMAN FACTORS

-**

*** WASTE SOURCE NO. 4 VOLUME AND LAYOUT OF CREW WORK AND REST
AREAS AND MODIFICATIONS

DOCUMENT NO. 3.5.2.1.4

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, REVISION NO.1,SEPTEMBER
1,1969,NASA OMSF.

REFERENCE NO. 2 .. MISSION AND EXPERIMENT PROGRAM REQUIREME
NTS FOR A ONE-YEAR SPACE STATION,GEORGE
C.MARSHALL SPACE FLIGHT CENTER,FEBRUARY
1967.

REFERENCE NO. 3 .. MANNED SPACE FLIGHT EXPERIMENT SUMMARY,G
EORGE C.MARSHALL SPACE FLIGHT CENTER,FEB
RUARY 1967.

***** WASTE ITEM NO. 1 RECORDING TAPE

STATE SOLID

DENSITY 105.00 LBS/CU. FT.

ATTRIBUTES PLASTIC TAPE

ELEMENTS PRESENT .. FE,O2

COMPOSITION MYLAR,POLYETHYLENE,TEREPHTHALATE RESIN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.50

DAILY RATE 0.00

BATCH SIZE 0.12

RECLAMATION ACTION .. ERASE

***** WASTE ITEM NO. 2 FILM,STILL,CINE

STATE SOLID

DENSITY 83.00 LBS/CU. FT.

ATTRIBUTES PLASTIC STRIP

ELEMENTS PRESENT .. AG,I

COMPOSITION ACLAR

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.50

DAILY RATE 0.00

BATCH SIZE 0.04

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 1 SPACE SYSTEMS HUMAN FACTORS
*** WASTE SOURCE NO. 4 VOLUME AND LAYOUT OF CREW WORK AND REST
AREAS AND MODIFICATIONS

, *

*** WASTE ITEM NO. 3 DATA SHEETS
STATE SOLID
DENSITY 72.00 LBS/CU. FT.
ATTRIBUTES PAPER
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.50
DAILY RATE 0.00
BATCH SIZE 0.12
RECLAMATION ACTION .. N/R

*** WASTE ITEM NO. 4 QUESTIONAIRES
STATE SOLID
DENSITY 72.00 LBS/CU. FT.
ATTRIBUTES PAPER
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.20
DAILY RATE 0.00
BATCH SIZE 0.02
RECLAMATION ACTION .. N/R

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 1 SPACE SYSTEMS HUMAN FACTORS

**** WASTE SOURCE NO. 5 INTERIOR DESIGN

DOCUMENT NO. 3.5.2.1.5

REMARKS (1) FOR OPERATIONAL DESCRIPTION SEE DOCUMENT
NO. A-3.5.2.1.4

***** WASTE ITEM NO. 1 RECORDING TAPE
STATE SOLID
DENSITY 105.00 LBS/CU. FT.
ATTRIBUTES PLASTIC TAPE
ELEMENTS PRESENT .. FE, O2
COMPOSITION MYLAR, POLYETHYLENE, TEREPHTHALATE RESIN
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.50
DAILY RATE 0.00
BATCH SIZE 0.12
RECLAMATION ACTION .. ERASE

***** WASTE ITEM NO. 2 DATA SHEETS
STATE SOLID
DENSITY 72.00 LBS/CU. FT.
ATTRIBUTES PAPER
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.15
DAILY RATE 0.00
BATCH SIZE 0.01
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 3 QUESTIONAIRES
STATE SOLID
DENSITY 72.00 LBS/CU. FT.
ATTRIBUTES PAPER
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.20
DAILY RATE 0.00
BATCH SIZE 0.02
RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

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RUN NO. ** 2 **

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S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 1SPACE SYSTEMS HUMAN FACTORS

*** WASTE SOURCE NO. 5 INTERIOR DESIGN

*** *****

***** WASTE ITEM NO. 4 TEST SHEETS (PAPER AND PEN)

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

0.50

DAILY RATE

0.00

BATCH SIZE

0.04

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A)
GROUP KEY 3.5.2

*: EQUIPMENT/EXPERIMENT NO. 1 SPACE SYSTEMS HUMAN FACTORS

*** WASTE SOURCE NO. 6 CLOTHING

DOCUMENT NO. 3.5.2.1.6

REFERENCE NO. 1 .. NATIONAL MULTIPURPOSE SPACE STATION, NASA
MSC, DECEMBER 1964.

REFERENCE NO. 2 .. EXPERIMENT PROGRAM FOR EARTH ORBITAL MIS
SICNS, REVISION NO. 1, SEPTEMBER 1, 1969, NAS
A.

*** WASTE ITEM NO. 1 RECORDING TAPE

STATE SOLID

DENSITY 105.00 LBS/CU. FT.

ATTRIBUTES PLASTIC TAPE

ELEMENTS PRESENT .. FE, O2

COMPOSITION MYLAR, POLYETHYLENE, TEREPHTHALATE RESIN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.00

DAILY RATE 0.00

BATCH SIZE 0.08

RECLAMATION ACTION .. ERASE

*** WASTE ITEM NO. 2 FILM, STILL, CINE

STATE SOLID

DENSITY 83.00 LBS/CU. FT.

ATTRIBUTES PLASTIC STRIP

ELEMENTS PRESENT .. AG, I

COMPOSITION ACLAR

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.30

DAILY RATE 0.00

BATCH SIZE 0.02

RECLAMATION ACTION .. N/R

*** WASTE ITEM NO. 3 DATA SHEETS

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.10

DAILY RATE 0.00

BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 1SPACE SYSTEMS HUMAN FACTORS
*** WASTE SOURCE NO. 6 CLOTHING

***** WASTE ITEM NO. 4 QUESTIONNAIRES

STATE SOLID
DENSITY 72.00 LBS/CU. FT.
ATTRIBUTES PAPER
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.15
DAILY RATE 0.00
BATCH SIZE 0.01
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 5 INSTRUMENT

STATE SOLID
DENSITY 166.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION VARIED
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 3.00
DAILY RATE 0.00
BATCH SIZE 0.25
RECLAMATION ACTION .. REPAIR

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A)
 GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 1 SPACE SYSTEMS HUMAN FACTORS
 **** *****

*** WASTE SOURCE NO. 7 INTERPERSONAL FACTORS

DOCUMENT NO. 3.5.2.1.7

REFERENCE NO. 1 .. MEDICAL ASPECTS OF AN ORBITING RESEARCH
 LABORATORY, NASA SPACE MEDICINE ADVISORY
 GROUP, NASA REPORT NC.SP-86, 1966.

REFERENCE NO. 2 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
 BITAL MISSIONS, REVISION NO. 1, SEPTEMBER 1
 9, 1969, NASA OMSF.

REFERENCE NO. 3 .. MISSION AND EXPERIMENT PROGRAM REQUIREME
 NTS FOR A ONE-YEAR SPACE STATION, GEORGE
 C. MARSHALL SPACE FLIGHT CENTER, FEBRUARY
 1967.

**** WASTE ITEM NO. 1 RECORDING TAPE
 STATE SOLID
 DENSITY 105.00 LBS/CU. FT.
 ATTRIBUTES PLASTIC TAPE
 ELEMENTS PRESENT .. FE, O2
 COMPOSITION MYLAR, POLYETHYLENE, TEREPHTHALATE RESIN
 GENERATION DATA ... QUANTITY (LBS)
 EXPT. TOTAL 1.00
 DAILY RATE 0.00
 BATCH SIZE 0.08
 RECLAMATION ACTION .. ERASE

**** WASTE ITEM NO. 2 QUESTIONAIRES
 STATE SOLID
 DENSITY 72.00 LBS/CU. FT.
 ATTRIBUTES PAPER
 ELEMENTS PRESENT ..
 COMPOSITION CELLULOSE
 GENERATION DATA ... QUANTITY (LBS)
 EXPT. TOTAL 0.15
 DAILY RATE 0.00
 BATCH SIZE 0.01
 RECLAMATION ACTION .. N/R

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S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 1 SPACE SYSTEMS HUMAN FACTORS
*** WASTE SOURCE NO. 7 INTERPERSONAL FACTORS

***** WASTE ITEM NO. 3 PAPER (PAPER AND PEN TESTS)

STATE SCLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES SHEETS

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 0.10

DAILY RATE 0.00

BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 1SPACE SYSTEMS HUMAN FACTORS

*** WASTE SOURCE NO. 8 RECREATION

DOCUMENT NO. 3.5.2.1.8

REMARKS (1) FOR OPERATIONAL DESCRIPTION SEE DOCUMENT
NC.A-3.5.2.1.4

***** WASTE ITEM NO. 1 RECORDING TAPE

STATE SOLID

DENSITY 105.00 LBS/CU. FT.

ATTRIBUTES PLASTIC TAPE

ELEMENTS PRESENT .. FE,O2

COMPOSITION MYLAR,POLYETHYLENE,TEREPHTHALATE RESIN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 10.00

DAILY RATE 0.00

BATCH SIZE 0.80

RECLAMATION ACTION .. ERASE

***** WASTE ITEM NO. 2 FILM,STILL,CINE

STATE SOLID

DENSITY 83.00 LBS/CU. FT.

ATTRIBUTES PLASTIC STRIP

ELEMENTS PRESENT .. AG,I

COMPOSITION ACLAR

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.50

DAILY RATE 0.00

BATCH SIZE 0.12

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 3 DATA SHEETS

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.30

DAILY RATE 0.00

BATCH SIZE 0.02

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 1SPACE SYSTEMS HUMAN FACTORS
*** WASTE SOURCE NO. 8 RECREATION

*** WASTE ITEM NO. 4 QUESTIONNAIRES
STATE SOLID
DENSITY 72.00 LBS/CU. FT.
ATTRIBUTES PAPER
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.40
DAILY RATE 0.00
BATCH SIZE 0.03
RECLAMATION ACTION .. N/R

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A)

GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 2 EVA/IVA TECHNOLOGY

ASSOCIATED FPE NUMBER ...

S/C AREAS AD LIB

E.V.A.

E.V.A. PLUS AD LIB

LABORATORY

WORK AREAS AIRLOCK

**** WASTE SOURCE NO. 1 ORIENTATION, STABILITY AND RESTRAINT

DOCUMENT NO. 3.5.2.2.1

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, REVISION NO. 1, SEPTEMBER
1, 1969, NASA DMSF.

REFERENCE NO. 2 .. MISSION AND EXPERIMENT PROGRAM REQUIREME
NTS FOR A ONE-YEAR SPACE STATION, GEORGE
C. MARSHALL SPACE FLIGHT CENTER, FEBRU
ARY 1967.

REFERENCE NO. 3 .. EVEA PROGRAM REQUIREMENTS STUDY, FINAL R
EPORT, NORTH AMERICAN ROCKWELL REPORT NO.
SD-68-304-7, 1968.

***** WASTE ITEM NO. 1 RECORDING TAPE

STATE SOLID

DENSITY 105.00 LBS/CU. FT.

ATTRIBUTES PLASTIC, TAPE

ELEMENTS PRESENT ..

COMPOSITION MYLAR-FE02, POLYETHYLENE, TEREPHTHALATE,
RESIN

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

12.00

DAILY RATE

0.00

BATCH SIZE

0.24

RECLAMATION ACTION .. ERASE

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 2EVA/IVA TECHNOLOGY
**** WASTE SOURCE NO. 1 ORIENTATION, STABILITY AND RESTRAINT

**** WASTE ITEM NO. 2 FILM, STILL, CINE
STATE SOLID
DENSITY 72.00 LBS/CU. FT.
ATTRIBUTES PLASTIC, STRIP
ELEMENTS PRESENT ..
COMPOSITION ACLAR AGI
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 2.50
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 3 DATA SHEETS
STATE SOLID
DENSITY 72.00 LBS/CU. FT.
ATTRIBUTES PAPER
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.05
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 4 INSTRUMENTS
STATE SOLID
DENSITY 166.00 LBS/CU. FT.
ATTRIBUTES METAL
ELEMENTS PRESENT ..
COMPOSITION VARIED
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 3.00
DAILY RATE 0.00
BATCH SIZE 0.06
RECLAMATION ACTION .. REPAIR

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 2EVA/IVA TECHNOLOGY

*** WASTE SOURCE NO. 2 PERSONNEL TRANSLATION

DOCUMENT NO. 3.5.2.2.2

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, REVISION NO. 1, SEPTEMBE
R 1, 1969, NASA OMSF.

REFERENCE NO. 2 .. MISSION AND EXPERIMENT PROGRAM REQUIREME
NTS FOR A ONE-YEAR SPACE STATION, GEORGE
C. MARSHALL SPACE FLIGHT CENTER, FEBRU
ARY, 1967.

REFERENCE NO. 3 .. MANNED SPACE FLIGHT EXPERIMENT SUMMARY,
GEORGE C. MARSHALL SPACE FLIGHT CENTER FE
BRUARY 1967.

***** WASTE ITEM NO. 1 RECORDING TAPE

STATE SOLID

DENSITY 105.00 LBS/CU. FT.

ATTRIBUTES PLASTIC, STRIP

ELEMENTS PRESENT ..

COMPOSITION MYLAR-FEO2, POLYETHYLENE, TEREPHTHALATE,
RESIN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 5.00

DAILY RATE 0.00

BATCH SIZE 0.10

RECLAMATION ACTION .. ERASE

***** WASTE ITEM NO. 2 FILM, STILL, CINE

STATE SOLID

DENSITY 83.00 LBS/CU. FT.

ATTRIBUTES PLASTIC, STRIP

ELEMENTS PRESENT ..

COMPOSITION ACLAR AGI

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.40

DAILY RATE 0.00

BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 2EVA/IVA TECHNOLOGY

*** WASTE SOURCE NO. 2 PERSONNEL TRANSLATION

*** *****

*** WASTE ITEM NO. 3 DATA SHEETS

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

0.20

DAILY RATE

0.00

BATCH SIZE

0.00

RECLAMATION ACTION .. N/R

*** WASTE ITEM NO. 4 QUESTIONNAIRES

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

0.10

DAILY RATE

0.00

BATCH SIZE

0.00

RECLAMATION ACTION .. N/R

*** WASTE ITEM NO. 5 INSTRUMENTS

STATE SOLID

DENSITY 166.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT ..

COMPOSITION VARIED

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

3.00

DAILY RATE

0.00

BATCH SIZE

0.06

RECLAMATION ACTION .. REPAIR

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 2 EVA/IVA TECHNOLOGY

*** WASTE SOURCE NO. 3 MASS TRANSLATION

DOCUMENT NO. 3.5.2.2.3

REMARKS { 1 } FOR OPERATIONAL DESCRIPTION SEE DOCUMENT
NO. A- 3.5.2.2.2

*** ** WASTE ITEM NO. 1 RECORDING TAPE

STATE SOLID

DENSITY 105.00 LBS/CU. FT.

ATTRIBUTES PLASTIC TAPE

ELEMENTS PRESENT ..

COMPOSITION MYLAR-FE02, POLYETHYLENE, TEREPHTHALATE,
RESIN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 3.00

DAILY RATE 0.00

BATCH SIZE 0.06

RECLAMATION ACTION .. ERASE

*** ** WASTE ITEM NO. 2 FILM, STILL, CINE

STATE SOLID

DENSITY 83.00 LBS/CU. FT.

ATTRIBUTES PLASTIC, STRIP

ELEMENTS PRESENT ..

COMPOSITION ACLAR AGI

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.50

DAILY RATE 0.00

BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

*** ** WASTE ITEM NO. 3 DATA SHEET

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.10

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

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S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 2EVA/IVA TECHNOLOGY

*** WASTE SOURCE NO. 3 MASS TRANSLATION

*** WASTE ITEM NO. 4 QUESTIONNAIRES

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 0.40

DAILY RATE 0.00

BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 2EVA/IVA TECHNOLOGY

*** WASTE SOURCE NO. 4 PROTECTIVE CLOTHING AND ADVANCED SPACE S
UIT ASSEMBLY DEVELOPMENT
DOCUMENT NO. 3.5.2.2.4

REFERENCE NO. 1 .. BACH, R.O., W.W. BOARDMAN, JR., AND J.W.
ROBINSON, JR. APPLICATION OF LITHIUM CH
EMICALS FOR AIR REGENERATION OF MANNED S
PACECRAFT. AMRL-TR-65-106, JUNE 1965.

REFERENCE NO. 2 .. BORYTA, D.A. AND E.W. DEZMELYK. CONFIGUR
ATION INVESTIGATION FOR LITHIUM OXIDE CA
RBN DIOXIDE CONTROL SYSTEMS. AMRL-TR-67
-62, OCTOBER, 1967

REFERENCE NO. 3 .. CHANDLER, H.W., E. McDONALD, F.Z. POLLAR
A, AND G. WALDEN. DESIGN AND DEVELOPMENT
OF REGENERATIVE CARBON DIOXIDE SCRBORS.
AMRL-TR-62-135, NOVEMBER 1962.

REFERENCE NO. 4 .. DESCRIPTIVE TITLES OF EXPERIMENTS SELECT
ED BY LANGLEY RESEARCH CENTER, 15 NOVEMB
ER 1963.

REFERENCE NO. 5 .. DEVELOPMENT OF THE MCRL, ANALYSIS OF SPA
CE RELATED OBJECTIVES, DOUGLAS REPORT NO
. SM48808 SEPTEMBER 1965.

REFERENCE NO. 6 .. EVALUATION OF DESORBATES FROM A REGENERA
TIVE CO2 REMOVAL SYSTEM USED IN A 60 DAY
MANNED TEST. MCDC ADVANCED BIOTECHNOLOG
Y AND POWER DEPARTMENT 1969.

REFERENCE NO. 7 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, NASA AAMP 1 SEPTEMBER 1
969.

REFERENCE NO. 8 .. EXPERIMENT PROGRAM FOR ONE-YEAR SPACE ST
ATION MISSION. MEMO MSFC 10 FEBRUARY 19
67

REFERENCE NO. 9 .. FIXLER, S.Z., SATELLITE THERMAL CONTROL
USING PHASE-CHANGE MATERIALS. J. SPACECR
AFT. 3, 1966, PP. 1362-1368

REFERENCE NO. 10 .. HEDGE, J.C., SURVEY OF THERMAL CONTROL T
ECHNIQUES FOR EXTRAVEHICULAR SPACE SUITS
AMRL TR-68-87, DECEMBER 1968.

REFERENCE NO. 11 .. IBM EXPERIMENT PROGRAM FOR MANNED EARTH
ORBITAL MISSIONS. VOL. 1. IBM REPORT NO.
65-928-63-CONTRACT NO. NAS1-4667, AUGUS
T 1965.

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 2 EVA/IVA TECHNOLOGY
*** WASTE SOURCE NO. 4 PROTECTIVE CLOTHING AND ADVANCED SPACE S
UIT ASSEMBLY DEVELOPMENT

REFERENCE NO. 12 .. KEATING, D. A., K. WEISWURM, C. M. MEYER, G. W. FI
LSON AND J. H. LANTZ. MANNED TESTING OF SEM
I-PASSIVE POTASSIUM SUPEROXIDE ATMOSPHER
E CONTROL SYSTEM AMRL-TR-65-

REFERENCE NO. 13 .. NASA EXPERIMENT DESCRIPTIONS FOR EXTENDE
D APOLLO EARTH ORBIT FLIGHTS 15 MARCH 19
65.

***** WASTE ITEM NO. 1 FILM, CINE
STATE SOLID
DENSITY 83.00 LBS/CU. FT.
ATTRIBUTES PLASTIC, STRIP
ELEMENTS PRESENT ..
COMPOSITION ACLAR, AGI
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.50
DAILY RATE 0.00
BATCH SIZE 0.02
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 DOSIMETERS-CONTENTS RADIOLUMINESCENT
STATE SOLID
DENSITY 397.50 LBS/CU. FT.
ATTRIBUTES GLASS
ELEMENTS PRESENT ..
COMPOSITION AG3PO4
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.20
DAILY RATE 0.00
BATCH SIZE 0.01
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 3 DOSIMETERS - CHEMICAL
STATE LIQUID
DENSITY 131.00 LBS/CU. FT.
ATTRIBUTES CHEMICAL
ELEMENTS PRESENT ..
COMPOSITION FE2(SO4)3
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.20
DAILY RATE 0.00
BATCH SIZE 0.01
RECLAMATION ACTION .. N/R

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A)
GROUP KEY 3.5.2 -

** EQUIPMENT/EXPERIMENT NO. 2EVA/IVA TECHNOLOGY
**** WASTE SOURCE NO. 4 PROTECTIVE CLOTHING AND ADVANCED SPACE S
UIT ASSEMBLY DEVELOPMENT

*** ** WASTE ITEM NO. 4 DOSIMETERS - THERMOLUMINESCANT
STATE SOLID
DENSITY 138.00 LBS/CU. FT.,
ATTRIBUTES CHEMICAL
ELEMENTS PRESENT .. LI, F
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.30
DAILY RATE 0.00
BATCH SIZE 0.15
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 5 CHARCOAL
STATE SOLID
DENSITY 125.00 LBS/CU. FT.
ATTRIBUTES FLAKES
ELEMENTS PRESENT .. C
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.40
DAILY RATE 0.00
BATCH SIZE 0.07
RECLAMATION ACTION .. PURGE,REACTIVATE

*** ** WASTE ITEM NO. 6 SILICA GEL
STATE SOLID
DENSITY 137.00 LBS/CU. FT.
ATTRIBUTES POWDER
ELEMENTS PRESENT ..
COMPOSITION SiO2.NH2O
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 5.00
DAILY RATE 0.00
BATCH SIZE 0.25
RECLAMATION ACTION .. DRY, PURGE

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 2 EVA/IVA TECHNOLOGY
**** WASTE SOURCE NO. 4 PROTECTIVE CLOTHING AND ADVANCED SPACE S
UIT ASSEMBLY DEVELOPMENT

**** WASTE ITEM NO. 7 RECORDING TAPE
STATE SOLID
DENSITY 105.00 LBS/CU. FT.
ATTRIBUTES TAPE
ELEMENTS PRESENT ..
COMPOSITION ACLAR , FED
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.30
DAILY RATE 0.00
BATCH SIZE 0.01
RECLAMATION ACTION .. ERASE

**** WASTE ITEM NO. 8 SUIT COMPONENTS
STATE SOLID
DENSITY 0.00 LBS/CU. FT.
ATTRIBUTES MISCELLANEOUS
ELEMENTS PRESENT ..
COMPOSITION VARIED
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.00
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. SALVAGE

**** WASTE ITEM NO. 9 LICH ABSORBER
STATE SOLID
DENSITY 28.00 LBS/CU. FT.
ATTRIBUTES POWDER
ELEMENTS PRESENT ..
COMPOSITION LICH
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 2.33
DAILY RATE 0.00
BATCH SIZE 2.33
RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 2 EVA/IVA TECHNOLOGY
**** WASTE SOURCE NO. 4 PROTECTIVE CLOTHING AND ADVANCED SPACE S
UIT ASSEMBLY DEVELOPMENT

***** WASTE ITEM NO. 10 DATA SHEETS
STATE SOLID
DENSITY 72.00 LBS/CU. FT.
ATTRIBUTES SHEETS
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 3.00
DAILY RATE 0.00
BATCH SIZE 0.15
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 11 NITROGEN
STATE GAS
DENSITY 0.07 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT .. N2
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL - 0.50
DAILY RATE 0.00
BATCH SIZE 0.02
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 12 CARBON DIOXIDE
STATE GAS
DENSITY 0.11 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION CO2
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.70
DAILY RATE 0.00
BATCH SIZE 0.08
RECLAMATION ACTION .. SABATIER

** MANNED SPACECRAFT WASTE GENERATION DATA **

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S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 2EVA/IVA TECHNOLOGY

*** WASTE SOURCE NO. 4 PROTECTIVE CLOTHING AND ADVANCED SPACE S
UIT ASSEMBLY DEVELOPMENT

***** WASTE ITEM NO. 13 WATER (SUIT COOLANT)

STATE LIQUID

DENSITY 62.40 LBS/CU. FT.

ATTRIBUTES VAPOR

ELEMENTS PRESENT ..

COMPOSITION WATER

GENERATION DATA QUANTITY (LBS)

EXPT. TOTAL 4.00

DAILY RATE 0.00

BATCH SIZE 2.00

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 14 WATER (FORMED)

STATE LIQUID

DENSITY 62.40 LBS/CU. FT.

ATTRIBUTES VAPOR

ELEMENTS PRESENT ..

COMPOSITION WATER

GENERATION DATA QUANTITY (LBS)

EXPT. TOTAL 0.65

DAILY RATE 0.00

BATCH SIZE 0.03

RECLAMATION ACTION .. DESORB

***** WASTE ITEM NO. 15 QUESTIONNAIRE

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES SHEET

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA QUANTITY (LBS)

EXPT. TOTAL 0.30

DAILY RATE 0.00

BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 2EVA/IVA TECHNOLOGY
**** WASTE SOURCE NO. 4 PROTECTIVE CLOTHING AND ADVANCED SPACE S
UIT ASSEMBLY DEVELOPMENT

***** WASTE ITEM NO. 16 GASES FOR G.C. CARRIER
STATE GAS
DENSITY 0.05 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT .. N, H, HE, A
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 12.00
DAILY RATE 0.00
BATCH SIZE 0.60
RECLAMATION ACTION ..

***** WASTE ITEM NO. 17 SUPPORT FOR G.C.
STATE SOLID
DENSITY 156.00 LBS/CU. FT.
ATTRIBUTES PARTICLES
ELEMENTS PRESENT .. SI
COMPOSITION FE2O3, AL2O3
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 3.00
DAILY RATE 0.00
BATCH SIZE 0.15
RECLAMATION ACTION .. DESORB ADSORBATES

***** WASTE ITEM NO. 18 MOLECULAR SIEVE FOR N2O SEPARATION
STATE SOLID
DENSITY 162.80 LBS/CU. FT.
ATTRIBUTES CHEMICALS
ELEMENTS PRESENT .. NA, AL
COMPOSITION SI3O8
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 2.00
DAILY RATE 0.00
BATCH SIZE 0.10
RECLAMATION ACTION .. REACTIVATE

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 2EVA/IVA TECHNOLOGY

**** WASTE SOURCE NO. 5 I.V.A. SUIT (PARTIAL PRESSURE)

DOCUMENT NO. 3.5.2.2.5

REFERENCE NO. 1 .. DAVIES, J.C. ET AL. PRELIMINARY STUDIES
ON A NEW PARTIAL PRESSURE SUIT CONCEPT.
SAM-TR-67-15 USAFSAM, FEBRUARY 1967

REFERENCE NO. 2 .. MCGUIRE T.F. ET AL, CARDIOVASCULAR EFFEC
TS CF BREATHING AGAINST UNBALANCED ATMOS
PHERIC PRESSURES JOUR AV. MED. 163 1209
-1213, 1957.

REFERENCE NO. 3 .. INTRAVEHICULAR ACTIVITY SPACE SUIT, NASA
CR 108278.

***** WASTE ITEM NO. 1 FILM,CINE

STATE SOLID

DENSITY 83.00 LBS/CU. FT.

ATTRIBUTES PLASTIC

ELEMENTS PRESENT ..

COMPOSITION ACLAR AGI

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 3.00

DAILY RATE 0.00

BATCH SIZE 0.03

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 DOSIMETER - CHEMICAL

STATE LIQUID

DENSITY 131.00 LBS/CU. FT.

ATTRIBUTES CHEMICAL

ELEMENTS PRESENT ..

COMPOSITION FE2(SO4)3

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.20

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION ..

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 2 EVA/IVA TECHNOLOGY

*** WASTE SOURCE NO. 5 I.V.A. SUIT (PARTIAL PRESSURE)

***** WASTE ITEM NO. 6 DATA SHEETS

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 0.40

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 7 SUIT COMPONENTS

STATE SOLID

DENSITY 14.00 LBS/CU. FT.

ATTRIBUTES METAL, PLASTIC

ELEMENTS PRESENT ..

COMPOSITION VARIED

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 7.60

DAILY RATE 0.00

BATCH SIZE 0.08

RECLAMATION ACTION .. SALVAGE

***** WASTE ITEM NO. 8 O2 IN P.P.L.S.

STATE GAS

DENSITY 0.09 LBS/CU. FT.

ATTRIBUTES COMPRESSED

ELEMENTS PRESENT .. O2

COMPOSITION

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 1.00

DAILY RATE 0.00

BATCH SIZE 0.01

RECLAMATION ACTION ..

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A)
GROUP KEY 3.5.2 -

** EQUIPMENT/EXPERIMENT NO. 2EVA/IVA TECHNOLOGY
**** WASTE SOURCE NO. 5 I.V.A. SUIT (PARTIAL PRESSURE)

**** ** WASTE ITEM NO. 9 LIOH ABSORBER (CO2)

STATE	SOLID	
DENSITY	28.00 LBS/CU. FT.	
ATTRIBUTES	POWDER	
ELEMENTS PRESENT ..		
COMPOSITION	LIOH	
GENERATION DATA ...		QUANTITY (LBS)
EXPT. TOTAL		4.00
DAILY RATE		0.00
BATCH SIZE		1.00
RECLAMATION ACTION ..	N/R	

**** ** WASTE ITEM NO. 10 LEAK TESTER CONTENTS

STATE	SOLID	
DENSITY	107.00 LBS/CU. FT.	
ATTRIBUTES	GLASS, CHEMICALS	
ELEMENTS PRESENT ..		
COMPOSITION	VARIED	
GENERATION DATA ...		QUANTITY (LBS)
EXPT. TOTAL		6.00
DAILY RATE		0.00
BATCH SIZE		0.06
RECLAMATION ACTION ..	REPLENISH CHEMICALS	

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (B)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 3 MAINTENANCE AND MAINTAINABILITY

ASSOCIATED FPE NUMBER ...
S/C AREAS VARIOUS AREAS
ALL AREAS

** * WASTE SOURCE NO. 1 ACCESSIBILITY

DOCUMENT NO. 3.5.2.3.1

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, REVISION NO. 1, SEPTEMBE
R 1, 1969, NASA OMSF.

REFERENCE NO. 2 .. MISSION AND EXPERIMENT PROGRAM REQUIREME
NTS FOR A ONE-YEAR SPACE STATION, GEORGE
C. MARSHALL SPACE FLIGHT CENTER, FEBRUA
RY 1967.

REFERENCE NO. 3 .. MANNED SPACE FLIGHT EXPERIMENT SUMMARY,
GEORGE C. MARSHALL SPACE FLIGHT CENTER,
FEBRUARY 1967.

***** WASTE ITEM NO. 1 RECORDING TAPE
STATE SOLID
DENSITY 105.00 LBS/CU. FT.
ATTRIBUTES PLASTIC TAPE
ELEMENTS PRESENT .. FE, O2
COMPOSITION MYLAR, POLYETHYLENE, TEREPHTHALATE RESIN
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 15.00
DAILY RATE 0.00
BATCH SIZE 0.30
RECLAMATION ACTION .. ERASE

***** WASTE ITEM NO. 2 FILM, STILL, CINE
STATE SOLID
DENSITY 83.00 LBS/CU. FT.
ATTRIBUTES PLASTIC STRIP
ELEMENTS PRESENT .. AG, I
COMPOSITION ACLAR
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.25
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (B)
GROUP KEY 3.5.2 -

** EQUIPMENT/EXPERIMENT NO. 3 MAINTENANCE AND MAINTAINABILITY
*** WASTE SOURCE NO. 1 ACCESSIBILITY

***** WASTE ITEM NO. 3 DATA SHEETS
STATE SOLID
DENSITY 72.00 LBS/CU. FT.
ATTRIBUTES PAPER
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.05
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 4 RECORDING DATA SHEETS
STATE SOLID
DENSITY 72.00 LBS/CU. FT.
ATTRIBUTES PAPER
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.50
DAILY RATE 0.00
BATCH SIZE 0.01
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 5 INSTRUMENTATION
STATE SOLID
DENSITY 0.17 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION VARIED
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 5.00
DAILY RATE 0.00
BATCH SIZE 0.10
RECLAMATION ACTION .. REPAIR

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (B)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 3 MAINTENANCE AND MAINTAINABILITY

*** WASTE SOURCE NO. 2 MAINTENANCE AND REPAIR IN ZERO G

DOCUMENT NO. 3.5.2.3.2

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, REVISION NO. 1, SEPTEMBE
R 1, 1969, NASA OMSF.

REFERENCE NO. 2 .. REPORT ON THE DEV.OF THE MANNED ORBITAL
RESEARCH LAB.(MORL) SYSTEM UTILIZATION P
CTENTIAL.TASK AREA 1 ANALY.OF SPACERELAT
ED OBJECT.,BOOK 2 DOUGLAS REPT. SM48808.

***** WASTE ITEM NO. 1 FILM,STILL,CINE
STATE SOLID
DENSITY 83.00 LBS/CU. FT.
ATTRIBUTES PLASTIC STRIP
ELEMENTS PRESENT .. AG,1 -
COMPOSITION ACLAR
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 2.50
DAILY RATE - 0.00
BATCH SIZE 0.01
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 DATA SHEETS
STATE SOLID
DENSITY 72.00 LBS/CU. FT.
ATTRIBUTES PAPER
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.50
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (B)
GROUP KEY 3.5.2 -

** EQUIPMENT/EXPERIMENT NO. 3 MAINTENANCE AND MAINTAINABILITY
**** WASTE SOURCE NO. 2 MAINTENANCE AND REPAIR IN ZERO G

***** WASTE ITEM NO. 3 EQUIPMENT
STATE SOLID
DENSITY 166.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION VARIED
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 5.00
DAILY RATE 0.00
BATCH SIZE 0.01
RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 4 TEST SPECIMENS
STATE VARIED
DENSITY 166.00 LBS/CU. FT.
ATTRIBUTES TBD
ELEMENTS PRESENT ..
COMPOSITION VARIED-TBD
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 20.00
DAILY RATE 0.00
BATCH SIZE 0.05
RECLAMATION ACTION .. REPAIR, IF POSSIBLE

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (B)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 4 BEHAVIOR

ASSOCIATED FPE NUMBER ...
S/C AREAS PSYCHOLOGY LABORATORY
CONTROL

*** WASTE SOURCE NO. 1 INTRAPERSONAL FACTORS

DOCUMENT NO. 3.5.2.4.1

REFERENCE NO. 1 .. NATIONAL MULTIPURPOSE SPACE STATION, NAS
A MSC DECEMBER 1964.

REFERENCE NO. 2 .. MEDICAL ASPECTS OF AN ORBITING RESEARCH
LABORATORY, NASA SPACE MEDICINE ADVISORY
GROUP, NASA REPORT NO.SP-86, 1966.

*** WASTE ITEM NO. 1 RECORDING TAPE

STATE SOLID
DENSITY 105.00 LBS/CU. FT.
ATTRIBUTES PLASTIC TAPE
ELEMENTS PRESENT .. FE, O2
COMPOSITION MYLAR, POLYETHYLENE, TEREPHTHALATE RESIN
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.00
DAILY RATE 0.00
BATCH SIZE 0.08
RECLAMATION ACTION .. ERASE

*** WASTE ITEM NO. 2 DATA SHEETS

STATE SOLID
DENSITY 72.00 LBS/CU. FT.
ATTRIBUTES PAPER
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.30
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (B)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 4 BEHAVIOR

**** WASTE SOURCE NO. 1 INTRAPERSONAL FACTORS

**** WASTE ITEM NO. 3 RECORDING DATA SHEETS

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 0.00

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 4 PAPER (PAPER AND PEN TESTS)

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES SHEETS

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 1.00

DAILY RATE 0.00

BATCH SIZE 0.08

RECLAMATION ACTION .. N/R

: WASTE ITEM NO. 5 CONTACT PASTE

STATE SEMI SOLID

DENSITY 53.00 LBS/CU. FT.

ATTRIBUTES PASTE

ELEMENTS PRESENT .. K,CL

COMPOSITION

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 0.25

DAILY RATE 0.00

BATCH SIZE 0.02

RECLAMATION ACTION .. COLLECT REHYDRATE

** MANNEO SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (B)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 4 BEHAVIOR

*** WASTE SOURCE NO. 1 INTRAPERSONAL FACTORS

*** WASTE ITEM NO. 6 INSTRUMENTS

STATE SOLID

DENSITY 166.00 LBS/CU. FT.

ATTRIBUTES GLASS, METAL

ELEMENTS PRESENT .. SI, O₂, FE, C

COMPOSITION CALCMEL

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 1.00

DAILY RATE 0.00

BATCH SIZE 0.08

RECLAMATION ACTION .. REPAIR

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (8)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 4 BEHAVIOR

**** WASTE SOURCE NO. 2 VISUAL FUNCTION

DOCUMENT NO. 3.5.2.4.2

**** ** WASTE ITEM NO. 1 RECORDING TAPE

STATE SOLID

DENSITY 105.00 LBS/CU. FT.

ATTRIBUTES PLASTIC TAPE

ELEMENTS PRESENT .. FE,D2

COMPOSITION MYLAR,POLYETHYLENE,TEREPHTHALATE RESIN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 2.00

DAILY RATE 0.00

BATCH SIZE 0.11

RECLAMATION ACTION .. ERASE

**** ** WASTE ITEM NO. 2 FILM,STILL,CINE

STATE SOLID

DENSITY 83.00 LBS/CU. FT.

ATTRIBUTES PLASTIC STRIP

ELEMENTS PRESENT .. AG,I

COMPOSITION ACLAR

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.25

DAILY RATE 0.00

BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

**** ** WASTE ITEM NO. 3 DATA SHEETS

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.05

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (B)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 4 BEHAVIOR

*** WASTE SOURCE NO. 2 VISUAL FUNCTION

*** WASTE ITEM NO. 4 QUESTIONNAIRES

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.03

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

*** WASTE ITEM NO. 5 RECORDING DATA SHEETS

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.05

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

*** WASTE ITEM NO. 6 INSTRUMENTATION

STATE SOLID

DENSITY 166.00 LBS/CU. FT.

ATTRIBUTES GLASS, METAL

ELEMENTS PRESENT .. SI, O₂, FE, C, AL

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 5.00

DAILY RATE 0.00

BATCH SIZE 0.30

RECLAMATION ACTION .. REPAIR

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (B)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 4 BEHAVIOR

*** WASTE SOURCE NO. 3 COMMUNICATIONS AND RECORDING

DOCUMENT NO. 3.5.2.4.3

REFERENCE NO. 1 .. NASA EXPERIMENT DESCRIPTIONS FOR EXTENDED APOLLO EARTH-ORBIT FLIGHTS. NASA HEADQUARTERS, WASHINGTON, D.C., MARCH 1965.

REFERENCE NO. 2 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH ORBITAL MISSIONS, REVISION NO.1 SEPTEMBER 1, 1969, NASA OMSF.

REFERENCE NO. 3 .. MISSION AND EXPERIMENT PROGRAM REQUIREMENTS FOR A ONE-YEAR SPACE STATION, GEORGE C. MARSHALL SPACE FLIGHT CENTER, FEBRUARY 1967.

***** WASTE ITEM NO. 1 RECORDING TAPE

STATE SOLID

DENSITY 105.00 LBS/CU. FT.

ATTRIBUTES PLASTIC TAPE

ELEMENTS PRESENT .. FE, O2

COMPOSITION MYLAR, POLYETHYLENE, TEREPHTHALATE RESIN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 2.00

DAILY RATE 0.00

BATCH SIZE 0.11

RECLAMATION ACTION .. ERASE

***** WASTE ITEM NO. 2 FILM, STILL, CINE

STATE SOLID

DENSITY 83.00 LBS/CU. FT.

ATTRIBUTES PLASTIC STRIP

ELEMENTS PRESENT .. AG, I

COMPOSITION ACLAR

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.25

DAILY RATE 0.00

BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (B)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 4 BEHAVIOR
*** WASTE SOURCE NO. 3 COMMUNICATIONS AND RECORDING

***** WASTE ITEM NO. 6 PAPER (PAPER AND PEN TESTS)
STATE SOLID
DENSITY 72.00 LBS/CU. FT.
ATTRIBUTES PAPER
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.03
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 7 INSTRUMENTATION
STATE SOLID
DENSITY 166.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION VARIED
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 3.00
DAILY RATE 0.00
BATCH SIZE 0.17
RECLAMATION ACTION .. REPAIR

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (B)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 4 BEHAVIOR

*** WASTE SOURCE NO. 4 KINESTHETIC FUNCTION

DOCUMENT NO. 3.5.2.4.4

REFERENCE NO. 1 .. NASA EXPERIMENT DESCRIPTIONS FOR EXTENDED
APOLLO EARTH-ORBIT FLIGHTS. NASA HEADQUARTERS,
WASHINGTON, D.C., MARCH 1965.

REFERENCE NO. 2 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, REVISION NO.1 SEPTEMBER
1, 1969, NASA GMSF.

REFERENCE NO. 3 .. EXPERIMENT SELECTION AND DEFINITION FOR
SIVB APPLICATIONS, DOUGLAS REPORT NO. SM
60569, DECEMBER 1966.

***** WASTE ITEM NO. 1 RECORDING TAPE

STATE SOLID

DENSITY 105.00 LBS/CU. FT.

ATTRIBUTES PLASTIC TAPE

ELEMENTS PRESENT .. FE,O2

COMPOSITION MYLAR,POLYETHELENE,TEREPHTHALATE RESIN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.00

DAILY RATE 0.00

BATCH SIZE 0.08

RECLAMATION ACTION .. ERASE

***** WASTE ITEM NO. 2 FILM,STILL,CINE

STATE SOLID

DENSITY 83.00 LBS/CU. FT.

ATTRIBUTES PLASTIC STRIP

ELEMENTS PRESENT .. AG,I

COMPOSITION ACLAR

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.20

DAILY RATE 00

BATCH SIZE 02

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (B)
GROUP KEY 3.5.2 ~

** EQUIPMENT/EXPERIMENT NO. 4 BEHAVIOR

**** WASTE SOURCE NO. 4 KINESTHETIC FUNCTION

***** ! *****

***** WASTE ITEM NO. 3 DATA SHEETS

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 0.00

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 4 QUESTIONNAIRES

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 0.03

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 5 RECORDING DATA SHEETS

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 0.02

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (B)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 4 BEHAVIOR
*** WASTE SOURCE NO. 4 KINESTHETIC FUNCTION

***** WASTE ITEM NO. 6 ELECTRODE PASTE
STATE SEMI-SOLID
DENSITY 53.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT .. K₂CL
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL - 0.50
DAILY RATE - 0.00
BATCH SIZE 0.04
RECLAMATION ACTION .. COLLECT-REHYDRATE

***** WASTE ITEM NO. 7 INSTRUMENTATION
STATE SOLID
DENSITY 166.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION VARIED
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 3.00
DAILY RATE - 0.00
BATCH SIZE 0.24
RECLAMATION ACTION .. REPAIR

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (B)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 4 BEHAVIOR

*** WASTE SOURCE NO. 5 ORIENTATION SENSES

DOCUMENT NO. 3.5.2.4.5

REMARKS (1) FOR OPERATIONAL DESCRIPTION SEE DOCUMENT
NO. A-3.5.2.4.4

***** WASTE ITEM NO. 1 RECORDING TAPE

STATE SOLID

DENSITY 105.00 LBS/CU. FT.

ATTRIBUTES PLASTIC TAPE

ELEMENTS PRESENT .. FE,O2

COMPOSITION MYLAR,POLYETHYLENE,TEREPATHALATE RESIN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.00

DAILY RATE 0.00

BATCH SIZE 0.08

RECLAMATION ACTION .. ERASE

***** WASTE ITEM NO. 2 FILM,STILL,CINE

STATE SOLID

DENSITY 83.00 LBS/CU. FT.

ATTRIBUTES PLASTIC STRIP

ELEMENTS PRESENT .. AG,I

COMPOSITION ACLAR

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.12

DAILY RATE 0.00

BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 3 DATA SHEETS

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.02

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (B)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 4 BEHAVIOR
**** WASTE SOURCE NO. 5 ORIENTATION SENSES

***** WASTE ITEM NO. 4 QUESTIONNAIRS

STATE SOLID
DENSITY 72.00 LBS/CU. FT.
ATTRIBUTES PAPER
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.01
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 5 RECORDING DATA SHEETS

STATE SOLID
DENSITY 72.00 LBS/CU. FT.
ATTRIBUTES PAPER
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.02
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 6 INSTRUMENTS

STATE SOLID
DENSITY 166.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION VARIED
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.50
DAILY RATE 0.00
BATCH SIZE 0.13
RECLAMATION ACTION .. REPAIR

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (B)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 4 BEHAVIOR

**** WASTE SOURCE NO. 6 CHEMICAL SENSE FUNCTION

DOCUMENT NO. 3.5.2.4.6

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, REVISION NO. 1, SEPTEMBER
R 1, 1969, NASA OMSF.

***** WASTE ITEM NO. 1 RECORDING TAPE

STATE SOLID

DENSITY 105.00 LBS/CU. FT.

ATTRIBUTES PLASTIC TAPE

ELEMENTS PRESENT .. FE, O2

COMPOSITION MYLAR, POLYETHYLENE, TEREPHTHALATE RESIN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.00

DAILY RATE 0.00

BATCH SIZE 0.08

RECLAMATION ACTION .. ERASE

***** WASTE ITEM NO. 2 DATA SHEETS

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.10

DAILY RATE 0.00

BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 3 OLFACTORY AEROSOLS

STATE GAS/LIQUID

DENSITY 62.40 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION VARIED

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 10.00

DAILY RATE 0.00

BATCH SIZE 0.80

RECLAMATION ACTION .. N/R (TRAP)

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (B)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 4 BEHAVIOR

*** WASTE SOURCE NO. 6 CHEMICAL SENSE FUNCTION

***** WASTE ITEM NO. 4 GUSTATORY SOLUTIONS

STATE LIQUID

DENSITY 65.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION VARIED

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 3.00

DAILY RATE 0.00

BATCH SIZE 0.25

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 5 DEIONIZED STERILE WATER

STATE SOLID

DENSITY 75.00 LBS/CU. FT.

ATTRIBUTES PLASTIC

ELEMENTS PRESENT .. CL

COMPOSITION COPOLYVINYL ACETATE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 2.00

DAILY RATE 0.00

BATCH SIZE 0.16

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 6 MICROSYRINGES

STATE

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.00

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION ..

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (B)
GROUP KEY 3.5.2 ~

** EQUIPMENT/EXPERIMENT NO. 4 BEHAVIOR

*** WASTE SOURCE NO. 7 SOMESTHETIC FUNCTION

DOCUMENT NO. 3.5.2.4.7

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, REVISION NO.1 SEPTEMBER
1, 1969, NASA OMSF.

REFERENCE NO. 2 .. SYMPOSIUM ON PSYCHOPHYSIOLOGICAL ASPECTS
OF SPACE FLIGHT, B. FLAHERTY EDITOR, CO
LUMBIA UNIVERSITY PRESS, NEW YORK, 1961.

*** ** WASTE ITEM NO. 1 RECORDING TAPE

STATE SOLID

DENSITY 105.00 LBS/CU. FT.

ATTRIBUTES PLASTIC TAPE

ELEMENTS PRESENT .. FE, O2

COMPOSITION MYLAR, POLYETHYLENE, TEREPHTHALATE RESIN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.00

DAILY RATE 0.00

BATCH SIZE 0.06

RECLAMATION ACTION .. ERASE

***** WASTE ITEM NO. 2 DATA SHEETS

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.03

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (B)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 4 BEHAVIOR

*** WASTE SOURCE NO. 7 SOMESTHETIC FUNCTION

***** WASTE ITEM NO. 3 COTTON TUFFS

STATE SOLID

DENSITY 87.00 LBS/CU. FT.

ATTRIBUTES SOFT

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.00

DAILY RATE 0.00

BATCH SIZE 0.06

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 4 NEEDLES

STATE SOLID

DENSITY 488.00 LBS/CU. FT.

ATTRIBUTES STEEL

ELEMENTS PRESENT .. FE,C

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.00

DAILY RATE 0.00

BATCH SIZE 0.01

RECLAMATION ACTION .. CLEAN

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (B)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 4 BEHAVIOR

*** WASTE SOURCE NO. 8 INTELLECTUAL FUNCTION

DOCUMENT NO. 3.5.2.4.8

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSIONS, REVISION NO.1 SEPTEMBER
1, 1969, NASA OMSF.

REFERENCE NO. 2 .. REPORT ON THE DEVELOPMENT OF THE MANNED
ORBITAL RES.LAB. (MORL) SYST.UTILIZATION
POTENTIAL.TASK AREA 1 ANAL.OF SPACE REL
.OBJECTIVES,BK 2,DOUGLAS REP. SM48808,SE

***** WASTE ITEM NO. 1 RECORDING TAPE

STATE	SOLID
DENSITY	105.00 LBS/CU. FT.
ATTRIBUTES	PLASTIC TAPE
ELEMENTS PRESENT ..	FE,O2
COMPOSITION	MYLAR,POLYETHYLENE TEREPHTHALATE
GENERATION DATA ...	QUANTITY (LBS)
EXPT. TOTAL	0.50
DAILY RATE	0.00
BATCH SIZE	0.04

RECLAMATION ACTION .. ERASE

***** WASTE ITEM NO. 2 QUESTIONNAIRES

STATE	SOLID
DENSITY	72.00 LBS/CU. FT.
ATTRIBUTES	PAPER
ELEMENTS PRESENT ..	
COMPOSITION	CELLULOSE
GENERATION DATA ...	QUANTITY (LBS)
EXPT. TOTAL	0.01
DAILY RATE	0.00
BATCH SIZE	0.00

RECLAMATION ACTION .. N/R

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (B)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 4 BEHAVIOR
*** WASTE SOURCE NO. 8 INTELLECTUAL FUNCTION

*** WASTE ITEM NO. 3 PAPER (PAPER & PEN TESTS)

STATE	SOLID
DENSITY	72.00 LBS/CU. FT.
ATTRIBUTES	PAPER
ELEMENTS PRESENT ..	
COMPOSITION	CELLULOSE
GENERATION DATA ...	QUANTITY (LBS)
EXPT. TOTAL	0.10
DAILY RATE	0.00
BATCH SIZE	0.01
RECLAMATION ACTION ..	N/R

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (B)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 4 BEHAVIOR

*** WASTE SOURCE NO. 9 HIGHER MENTAL FUNCTION

DOCUMENT NO. 3.5.2.4.9

REFERENCE NO. 1 .. NASA EXPERIMENT DESCRIPTIONS FOR EXTENDED APOLLO EARTH-ORBIT FLIGHTS. NASA HEADQUARTERS, WASHINGTON, D.C., MARCH 1965.

REFERENCE NO. 2 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH ORBITAL MISSIONS, REVISION NO.1 SEPTEMBER 1, 1969, NASA OMSF.

REFERENCE NO. 3 .. S.P. VINOGRAD, MEDICAL ASPECTS OF AN ORBITING RESEARCH LABORATORY, SPACE MEDICAL ADVISORY GROUP STUDY, NASA REPORT NO. SP 86, 1964.

***** WASTE ITEM NO. 1 RECORDING TAPE

STATE SOLID

DENSITY 105.00 LBS/CU. FT.

ATTRIBUTES PLASTIC TAPE

ELEMENTS PRESENT .. FE, O2

COMPOSITION MYLAR, POLYETHYLENE, TEREPHTHALATE RESIN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.50

DAILY RATE 0.00

BATCH SIZE 0.12

RECLAMATION ACTION .. ERASE

***** WASTE ITEM NO. 2 DATA SHEETS

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.15

DAILY RATE 0.00

BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

** MANNEF SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (B)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 4 BEHAVIOR

*** WASTE SOURCE NO. 9 HIGHER MENTAL FUNCTION

*** WASTE ITEM NO. 3 TEST SHEETS (PAPER & PEN)

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.50

DAILY RATE 0.00

BATCH SIZE 0.04

RECLAMATION ACTION .. N/R

*** WASTE ITEM NO. 4 INSTRUMENTATION

STATE SOLID

DENSITY 166.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION VARIED

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 10.00

DAILY RATE 0.00

BATCH SIZE 0.80

RECLAMATION ACTION .. REPAIR

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (B)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 4 BEHAVIOR

** WASTE SOURCE NO. 10 AUDITORY FUNCTION

DOCUMENT NO. 3.5.2.4.10

REFERENCE NO. 1 .. NASA EXPERIMENT DESCRIPTIONS FOR EXTENDED
APOLLO EARTH-ORBIT FLIGHTS. NASA HEADQUARTERS,
WASHINGTON, D.C., MARCH 1965.

REFERENCE NO. 2 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH ORBITAL
MISSIONS, REVISION NO. 1 SEPTEMBER 1, 1969, NASA OMSF.

REFERENCE NO. 3 .. MISSION AND EXPERIMENT PROGRAM REQUIREMENTS
FOR A ONE-YEAR SPACE STATION, GEORGE C. MARSHALL SPACE FLIGHT CENTER,
FEBRUARY, 1967.

***** WASTE ITEM NO. 1 RECORDING TAPE

STATE SOLID

DENSITY 105.00 LBS/CU. FT.

ATTRIBUTES PLASTIC TAPE

ELEMENTS PRESENT .. FE, O₂

COMPOSITION MYLAR, POLYETHYLENE, TEREPHTHALATE RESIN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 2.00

DAILY RATE 0.00

BATCH SIZE 0.11

RECLAMATION ACTION .. ERASE

***** WASTE ITEM NO. 2 DATA SHEETS

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.10

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (B)
GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 4 BEHAVIOR
*** WASTE SOURCE NO. 10 AUDITORY FUNCTION

*** WASTE ITEM NO. 3 INSTRUMENTS

STATE SCLID

DENSITY 166.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION VARIED

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 3.00

DAILY RATE 0.00

BATCH SIZE 0.18

RECLAMATION ACTION .. REPAIR

SPACE MANUFACTURING STUDIES/TASKS

S/C SUBSYSTEM MATERIALS MELTING

GROUP KEY 3.6.1

BASIC FUNCTION PERFORM MISSION TASKS
FUNCTIONAL REQUIREMENT SPACE MANUFACTURING STUDIES AND
TASKS

** EQUIPMENT/EXPERIMENT NO. 1 MINIMUM BATCH SIZE

ASSOCIATED FPE NUMBER ... 5.16

S/C AREAS MELTING LABORATORY

*** WASTE SOURCE NO. 1 MINIMUM BATCH SIZE

DOCUMENT NO. 3.6.1.1.1*

***** WASTE ITEM NO. 1 AIR

STATE GAS

DENSITY 0.09 LBS/CU. FT.

ATTRIBUTES CONTAMINATED, LOW PRESSURE

ELEMENTS PRESENT .. O2, N2

COMPOSITION

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 10.25

DAILY RATE 0.56

BATCH SIZE 0.11

RECLAMATION ACTION .. RECOMPRESS, FILTER

***** WASTE ITEM NO. 2 NITROGEN

STATE GAS

DENSITY 0.08 LBS/CU. FT.

ATTRIBUTES CONTAMINATED, LOW PRESSURE

ELEMENTS PRESENT .. N2

COMPOSITION

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 0.49

DAILY RATE 0.49

BATCH SIZE 0.10

RECLAMATION ACTION ..

***** WASTE ITEM NO. 3 FILM, 16MM

STATE SOLID

DENSITY 83.00 LBS/CU. FT.

ATTRIBUTES EXPOSED, UNDEVELOPED

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 310.00

DAILY RATE 16.90

BATCH SIZE 1.69

RECLAMATION ACTION .. N/A

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM MATERIALS MELTING
GROUP KEY 3.6.1

** EQUIPMENT/EXPERIMENT NO. 1MINIMUM BATCH SIZE

*** WASTE SOURCE NO. 1 MINIMUM BATCH SIZE

***** WASTE ITEM NO. 4 M 512 EXPERIMENT FACILITY

STATE SOLID

DENSITY 45.00 LBS/CU. FT.

ATTRIBUTES METAL, PRESS. VESSEL

ELEMENTS PRESENT ..

COMPOSITION

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 210.00

DAILY RATE 0.00

BATCH SIZE 210.00

RECLAMATION ACTION .. REUSABLE AS IS

S/C SUBSYSTEM MATERIALS PROCESSING
GROUP KEY 3.6.2

BASIC FUNCTION PERFORM MISSION TASKS
FUNCTIONAL REQUIREMENT SPACE MANUFACTURING STUDIES AND
TASKS

** EQUIPMENT/EXPERIMENT NO. 1 MEDIUM BATCH SIZE

ASSOCIATED FPE NUMBER ... 5.16
S/C AREAS MELTING LABORATORY

*** WASTE SOURCE NO. 1 MEDIUM BATCH SIZE

DOCUMENT NO. 3.6.2.1.1*

REFERENCE NO. 1 .. REPORT ME-69-1, SPACE PROCESSING AND MAN
UFACTURING, DTD. OCTOBER 21, 1969, P. 54
. GEORGE C. MARSHALL SPACE FLIGHT CENTER
, NASA.

REFERENCE NO. 2 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
BITAL MISSION, REVISION NO. 1, SEPTEMBER
1968, NASA.

REFERENCE NO. 3 .. SIAKIY CORP., ELECTRON BEAM MAINTENANCE
MANUAL

***** WASTE ITEM NO. 1 AIR
STATE GAS
DENSITY 0.09 LBS/CU. FT.
ATTRIBUTES CONTAMINATED, LOW PRESS.
ELEMENTS PRESENT .. O2, N2
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 125.86
DAILY RATE 5.37
BATCH SIZE 0.97
RECLAMATION ACTION .. RECOMPRESS, FILTER

***** WASTE ITEM NO. 2 NITROGEN
STATE GAS
DENSITY 0.08 LBS/CU. FT.
ATTRIBUTES CONTAMINATED, LOW PRESS.
ELEMENTS PRESENT .. N2
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 4.69
DAILY RATE 4.69
BATCH SIZE 0.94
RECLAMATION ACTION .. RECOMPRESS, FILTER

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM MATERIALS PROCESSING
GROUP KEY 3.6.2

** EQUIPMENT/EXPERIMENT NO. 1 MEDIUM BATCH SIZE

**~* WASTE SOURCE NO. 1 MEDIUM BATCH SIZE

**** ** WASTE ITEM NO. 3 FILM, 16MM

STATE SOLID

DENSITY 83.00 LBS/CU. FT.

ATTRIBUTES EXPOSED, UNDEVELOPED

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 716.56

DAILY RATE 33.80

BATCH SIZE 1.69

RECLAMATION ACTION .. N/A

**** ** WASTE ITEM NO. 4 EXPERIMENTAL FACILITY

STATE SOLID

DENSITY 100.00 LBS/CU. FT.

ATTRIBUTES METAL PRESS. VESSEL

ELEMENTS PRESENT .. FE, NI, CU

COMPOSITION PLASTIC

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 1100.00

DAILY RATE 0.00

BATCH SIZE 1100.00

RECLAMATION ACTION .. REUSABLE AS IS

**** ** WASTE ITEM NO. 5 ACCESSORY TOOLING

STATE SOLID

DENSITY 45.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. NI, CO, CU, FE

COMPOSITION PLASTIC

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 1320.00

DAILY RATE 120.00

BATCH SIZE 120.00

RECLAMATION ACTION ..

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM MATERIALS PROCESSING
GROUP KEY 3.6.2

** EQUIPMENT/EXPERIMENT NO. 1 MEDIUM BATCH SIZE

*** WASTE SOURCE NO. 1 MEDIUM BATCH SIZE

***** WASTE ITEM NO. 6 WATER

STATE LIQUID

DENSITY 62.50 LBS/CU. FT.

ATTRIBUTES CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION WATER

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

125.00

DAILY RATE

0.00

BATCH SIZE

0.00

RECLAMATION ACTION .. FILTER

***** WASTE ITEM NO. 7 WATER

STATE LIQUID

DENSITY 62.50 LBS/CU. FT.

ATTRIBUTES HEATED

ELEMENTS PRESENT ..

COMPOSITION WATER

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

625.00

DAILY RATE

625.00

BATCH SIZE

125.00

RECLAMATION ACTION .. COOL

***** WASTE ITEM NO. 8 FILAMENT

STATE SOLID

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES METALLIC, BURNED

ELEMENTS PRESENT .. COBALT

COMPOSITION

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL

0.00

DAILY RATE

0.00

BATCH SIZE

0.00

RECLAMATION ACTION .. N/A

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM MATERIALS PROCESSING
GROUP KEY 3.6.2

** EQUIPMENT/EXPERIMENT NO. 1 MEDIUM BATCH SIZE

*** WASTE SOURCE NO. 1 MEDIUM BATCH SIZE

***** WASTE ITEM NO. 9 SEALS

STATE SOLID

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES PLASTIC, DAMAGED

ELEMENTS PRESENT .. SI

COMPOSITION TFE

GENERATION DATA ..

QUANTITY (LBS)

EXPT. TOTAL 0.00

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/A

S/C SUBSYSTEM PRE-PRODUCTION MATERIALS PROCESSING
GROUP KEY 3.6.3

BASIC FUNCTION PERFORM MISSION TASKS
FUNCTIONAL REQUIREMENT SPACE MANUFACTURING STUDIES AND
TASKS

** EQUIPMENT/EXPERIMENT NO. . 1 PRE-PRODUCTION LOTS

ASSOCIATED FPE NUMBER ... 5.24
S/C AREAS LABORATORY

**** WASTE SOURCE NO. 1 PRE-PRODUCTION LOTS

DOCUMENT NO. 3.6.3.1.1*

REFERENCE NO. 1 .. HOUSEKEEPING CONCEPTS FOR MANNED SPACE S
YSTEMS, DOCUMENT NO. MS124Y0001, FAIRCHI
LD HILLER, R.A.D., 26 JUNE 1970

REFERENCE NO. 2 .. SPACE PROCESSING AND MANUFACTURING, GEOR
GE C. MARSHALL SPACE FLIGHT CENTER, NASA
, N70-20517-548, DATED 5 FEB., 1969

***** WASTE ITEM NO. 1 AIR
STATE GAS
DENSITY 0.09 LBS/CU. FT.
ATTRIBUTES CONTAMINATED, LOW PRESS.
ELEMENTS PRESENT .. N2, O2
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 24.00
DAILY RATE 3.40
BATCH SIZE 0.41
RECLAMATION ACTION .. RECOMPRESS, FILTER

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM PRODUCTION MATERIALS PROCESSING
GROUP KEY 3.6.4

BASIC FUNCTION PERFORM MISSION TASKS
FUNCTIONAL REQUIREMENT SPACE MANUFACTURING STUDIES AND
TASKS

** EQUIPMENT/EXPERIMENT NO. 1 MANUFACTURING AND PROCESSING FAC
ILITY
ASSOCIATED FPE NUMBER ... 5.24
S/C AREAS LABORATORY

*** WASTE SOURCE NO. 1 MANUFACTURING AND PROCESSING FACILITY
DOCUMENT NO. 3.6.4.1.1*

**** WASTE ITEM NO. 1 AIR
STATE GAS
DENSITY 0.09 LBS/CU. FT.
ATTRIBUTES LOW PRESSURE, HEATED
ELEMENTS PRESENT .. N2, O2
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.00
DAILY RATE 0.70
BATCH SIZE 0.00
RECLAMATION ACTION .. COOL

** MANNED SPACECRAFT WASTE GENERATION DATA **

EARTH RESOURCES AND OCEANOGRAPHY STUDIES/TASKS

S/C SUBSYSTEM EARTH RESOURCES AND METEOROLOGY
 GROUP KEY 3.7.1

BASIC FUNCTION
 FUNCTIONAL REQUIREMENT EARTH SURVEYS

** EQUIPMENT/EXPERIMENT NO. 1 AGRICULTURE/ FORESTRY AND GEOGRA
 PHY EXPERIMENTS

ASSOCIATED FPE NUMBER ... 5.11
 S/C AREAS EARTH OBSERVATION LABORATORY

*** WASTE SOURCE NO. 1 AGRICULTURE/FORESTRY AND GEOGRAPHY EXPER
 IMENTS

DOCUMENT NO. 3.7.1.1.1*

REFERENCE NO. 1 .. EXPERIMENTAL PROGRAM FOR EXTENDED EARTH
 ORBITAL MISSIONS, REV. 1 SEPT 1, 1969 TO THE
 EXPERIMENT PROGRAM FOR MANNED ORBITAL
 WORKSHOPS, AUG. 14, 1968, PAYLOADS DIRECTORATE

REFERENCE NO. 2 .. CANDIDATE EXPERIMENT PROGRAM FOR MANNED
 SPACE STATIONS, NASA REVISED BY CONVAIR
 DIV. OF GENERAL DYNAMICS, AUG. 1969

REFERENCE NO. 3 .. SENSORS POSE EARTH SATELLITE CHALLENGE,
 AVIATION WEEK AND SPACE TECHNOLOGY, JUNE
 22, 1970, PP 124-130

***** WASTE-ITEM NO. 1 MAGNETIC TAPE (ANALOG)

STATE SOLID

DENSITY 30.00 LBS/CU. FT.

ATTRIBUTES FILM END, STRIPS

ELEMENTS PRESENT ..

COMPOSITION MYLAR

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 0.30

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. SPLICE

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM EARTH RESOURCES AND METEOROLOGY
GROUP KEY 3.7.1

** EQUIPMENT/EXPERIMENT NO. 1 AGRICULTURE/ FORESTRY AND GEOGRAPHY EXPERIMENTS

*** WASTE SOURCE NO. 1 AGRICULTURE/FORESTRY AND GEOGRAPHY EXPERIMENTS

*** WASTE ITEM NO. 2 MAGNETIC TAPE (DIGITAL)

STATE SOLID

DENSITY 30.00 LBS/CU. FT.

ATTRIBUTES FILM END, STRIPS

ELEMENTS PRESENT ..

COMPOSITION MYLAR

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.30

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. SPLICE

*** WASTE ITEM NO. 3 MAGNETIC TAPE (VOICE)

STATE SOLID

DENSITY 30.00 LBS/CU. FT.

ATTRIBUTES FILM END, STRIPS

ELEMENTS PRESENT ..

COMPOSITION MYLAR

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.30

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. SPLICE

*** WASTE ITEM NO. 4 COMPRESSOR (CRYOGENIC)

STATE SOLID

DENSITY 40.00 LBS/CU. FT.

ATTRIBUTES MECHANICAL COMPONENT

ELEMENTS PRESENT .. FE, AL, C

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 12.00

DAILY RATE 0.00

BATCH SIZE 12.00

RECLAMATION ACTION .. REPAIR ON BOARD

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RUN NO. ** 2 **

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S/C SUBSYSTEM EARTH RESOURCES AND METEOROLOGY
GROUP KEY 3.7.1

** EQUIPMENT/EXPERIMENT NO. 1 AGRICULTURE/ FORESTRY AND GEOGRAPHY EXPERIMENTS

*** WASTE SOURCE NO. 1 AGRICULTURE/FORESTRY AND GEOGRAPHY EXPERIMENTS

***** WASTE ITEM NO. 5 FAILED MAGAZINE
STATE SOLID
DENSITY 30.00 LBS/CU. FT.
ATTRIBUTES MECHANICAL COMPONENT
ELEMENTS PRESENT .. AL, MG
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 4.00
DAILY RATE 0.00
BATCH SIZE 4.00
RECLAMATION ACTION .. REPAIR ON BOARD

***** WASTE ITEM NO. 6 POLAROID FILM WRAP
STATE SOLID
DENSITY 20.00 LBS/CU. FT.
ATTRIBUTES MULTILAYER PAPER
ELEMENTS PRESENT .. AL
COMPOSITION PAPER, ALKALI, JELLY
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 92.00
DAILY RATE 0.31
BATCH SIZE 0.03
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 7 POLAROID PRINT
STATE SOLID
DENSITY 60.00 LBS/CU. FT.
ATTRIBUTES PHOTO STOCK
ELEMENTS PRESENT ..
COMPOSITION PAPER, CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 19.00
DAILY RATE 0.06
BATCH SIZE 0.01
RECLAMATION ACTION .. N/R

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RUN NO. ** 2 **

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S/C SUBSYSTEM EARTH RESOURCES AND METEOROLOGY
GROUP KEY 3.7.1

** EQUIPMENT/EXPERIMENT NO. 1 AGRICULTURE/ FORESTRY AND GEOGRA
PHY EXPERIMENTS

**** WASTE SOURCE NO. 1 AGRICULTURE/FORESTRY AND GEOGRAPHY EXPER
IMENTS

*** / ****

***** WASTE ITEM NO. 8 PRINT FIXER

STATE SOLID

DENSITY 20.00 LBS/CU. FT.

ATTRIBUTES PLASTIC CONTAINER WITH SPONGE ATTACHED

ELEMENTS PRESENT ..

COMPOSITION MASTIC, ACETATE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 8.30

DAILY RATE 0.03

BATCH SIZE 0.03

RECLAMATION ACTION .. REFILL

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM EARTH RESOURCES AND METEOROLOGY
GROUP KEY 3.7.1

** EQUIPMENT/EXPERIMENT NO. 2 GEOLOGY/ MINEROLOGY EXPERIMENTS

ASSOCIATED FPE NUMBER ... 5.11
S/C AREAS EARTH OBSERVATION LABORATORY

**** WASTE SOURCE NO. 1 GEOLOGY/MINEROLOGY EXPERIMENTS

DOCUMENT NO. 3.7.1.2.1*

REFERENCE NO. 1 .. EXPERIMENTAL PROGRAM FOR EXTENDED EARTH
ORBITAL MISSIONS, REV. 1, SEPT. 1, 1969 TO THE
EXPERIMENT PROGRAM FOR MANNED ORBITAL
WORKSHOPS, AUG. 14, 1968, PAYLOADS DIRECTORATE

REFERENCE NO. 2 .. CANDIDATE EXPERIMENT PROGRAM FOR MANNED
SPACE STATIONS, NASA. REVISED BY CONVAIR
DIVISION OF GENERAL DYNAMICS, AUGUST 19
69

REFERENCE NO. 3 .. SENSORS POSE EARTH SATELLITE CHALLENGE,
AVIATION WEEK TECHNOLOGY, JUNE 22, 1970,
PP 124-130.

***** WASTE ITEM NO. 1 MAGNETIC TAPE (ANALOG)

STATE SOLID
DENSITY 30.00 LBS/CU. FT.
ATTRIBUTES FILM END, STRIP
ELEMENTS PRESENT ..
COMPOSITION MYLAR
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.30
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. SPLICE

***** WASTE ITEM NO. 2 MAGNETIC TAPE (DIGITAL)

STATE SOLID
DENSITY 30.00 LBS/CU. FT.
ATTRIBUTES FILM END, STRIP
ELEMENTS PRESENT ..
COMPOSITION MYLAR
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.30
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. SPLICE

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S/C SUBSYSTEM EARTH RESOURCES AND METEOROLOGY
GROUP KEY 3.7.1

** EQUIPMENT/EXPERIMENT NO. 2 GEOLOGY/ MINEROLOGY EXPERIMENTS
*** WASTE SOURCE NO. 1 GEOLOGY/MINEROLOGY EXPERIMENTS

***** WASTE ITEM NO. 3 MAGNETIC TAPE (VOICE)
STATE SOLID
DENSITY 30.00 LBS/CU. FT.
ATTRIBUTES FILM END, STRIP
ELEMENTS PRESENT ..
COMPOSITION MYLAR
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.30
DAILY RATE 0.00
BATCH SIZE 0.00
RECLAMATION ACTION .. SPLICE

***** WASTE ITEM NO. 4 COMPRESSOR (CRYOGENIC)
STATE SOLID
DENSITY 40.00 LBS/CU. FT.
ATTRIBUTES MECHANICAL COMPONENT
ELEMENTS PRESENT .. FE, AL, C
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 12.00
DAILY RATE 0.00
BATCH SIZE 12.00
RECLAMATION ACTION .. REPAIR ONBOARD

***** WASTE ITEM NO. 5 FAILED MAGAZINE
STATE SOLID
DENSITY 30.00 LBS/CU. FT.
ATTRIBUTES MECHANICAL COMPONENT
ELEMENTS PRESENT .. AL, MG
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 4.00
DAILY RATE 0.00
BATCH SIZE 4.00
RECLAMATION ACTION .. REPAIR ONBOARD

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM EARTH RESOURCES AND METEOROLOGY
GROUP KEY 3.7.1

** EQUIPMENT/EXPERIMENT NO. 2GEOLOGY/ MINEROLOGY EXPERIMENTS
*** WASTE SOURCE NO. 1 GEOLOGY/MINEROLOGY EXPERIMENTS

***** WASTE ITEM NO. 6 POLAROID FILM WRAP
STATE SOLID
DENSITY 20.00 LBS/CU. FT.
ATTRIBUTES MULTILAYER PAPER
ELEMENTS PRESENT .. AL
COMPOSITION PAPER, ALKALI, GEL
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 92.00
DAILY RATE 0.31
BATCH SIZE 0.03
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 7 POLAROID PRINT
STATE SOLID
DENSITY 60.00 LBS/CU. FT.
ATTRIBUTES PHOTO STOCK
ELEMENTS PRESENT ..
COMPOSITION PAPER, CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL -- 19.00
DAILY RATE 0.06
BATCH SIZE 0.01
RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 8 PRINT FIXER
STATE SOLID
DENSITY 20.00 LBS/CU. FT.
ATTRIBUTES PLASTIC CONTAINER WITH SPONGE ATTACHED
ELEMENTS PRESENT ..
COMPOSITION PLASTIC, ACETATE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 8.30
DAILY RATE 0.03
BATCH SIZE 0.03
RECLAMATION ACTION .. REFILL

S/C SUBSYSTEM EARTH RESOURCES AND METEOROLOGY
GROUP KEY 3.7.1

** EQUIPMENT/EXPERIMENT NO. 3 HYDROLOGY/WATER RESOURCES EXPERI
MENTS

ASSOCIATED FPE NUMBER ... 5.11

S/C AREAS EARTH OBSERVATION LABORATORY

**** WASTE SOURCE NO. 1 HYDROLOGY/WATER RESOURCES EXPERIMENTS

DOCUMENT NO. 3.7.1.3.1*

REFERENCE NO. 1 .. EXPERIMENTAL PROGRAM FOR EXTENDED EARTH
ORBITAL MISSIONS, REV. 1, SEPT. 1, 1969 TO 1H
E EXPERIMENT PROGRAM FOR MANNED ORBITAL
WORKSHOPS, AUG. 14, 1968, PAYLOADS DIRECTOR

REFERENCE NO. 2 .. CANDIDATE EXPERIMENT PROGRAM FOR MANNED
SPACE STATIONS, NASA, REVISED BY CONVAIR
DIVISION OF GENERAL DYNAMICS, AUGUST 19
69

REFERENCE NO. 3 .. SENSORS POSE EARTH SATELLITE CHALLENGE,
AVIATION WEEK AND SPACE TECHNOLOGY, JUNE
22, 1970. PP 124-130.

***** WASTE ITEM NO. 1 MAGNETIC TAPE (ANALOG)

STATE SOLID

DENSITY 30.00 LBS/CU. FT.

ATTRIBUTES FILM-END, STRIP

ELEMENTS PRESENT ..

COMPOSITION MYLAR

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.30

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. SPLICE

***** WASTE ITEM NO. 2 MAGNETIC TAPE (DIGITAL)

STATE SOLID

DENSITY 30.00 LBS/CU. FT.

ATTRIBUTES FILM END, STRIP

ELEMENTS PRESENT ..

COMPOSITION MYLAR

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.30

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. SPLICE

S/C SUBSYSTEM EARTH RESOURCES AND METEOROLOGY
GROUP KEY 3.7.1

** EQUIPMENT/EXPERIMENT NO. 3HYDROLOGY/WATER RESOURCES EXPERI
MENTS

**** WASTE SOURCE NO. 1 HYDROLOGY/WATER RESOURCES EXPERIMENTS

***** WASTE ITEM NO. 3 MAGNETIC TAPE (VOICE

STATE SOLID

DENSITY 30.00 LBS/CU. FT.

ATTRIBUTES FILM END, STRIP

ELEMENTS PRESENT ..

COMPOSITION MYLAR

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.30

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. SPLICE

***** WASTE ITEM NO. 4 POLAROID PRINT

STATE SOLID

DENSITY 60.00 LBS/CU. FT.

ATTRIBUTES PHOTO STOCK

ELEMENTS PRESENT ..

COMPOSITION PAPER, CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 19.00

DAILY RATE 0.06

BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 5 POLAROID FILM PACKAGE

STATE SOLID

DENSITY 20.00 LBS/CU. FT.

ATTRIBUTES MULTILAYER PAPER

ELEMENTS PRESENT .. AL

COMPOSITION PAPER, ALKALI, GEL

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 92.00

DAILY RATE 0.31

BATCH SIZE 0.03

RECLAMATION ACTION .. N/R

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S/C SUBSYSTEM EARTH RESOURCES AND METEOROLOGY
GROUP KEY 3.7.1

** EQUIPMENT/EXPERIMENT NO. 3HYDROLOGY/WATER RESOURCES EXPERI
MENTS

*** WASTE SOURCE NO. 1 HYDROLOGY/WATER RESOURCES EXPERIMENTS

*** WASTE ITEM NO. 6 FAILED MAGAZINE

STATE SOLID
DENSITY 30.00 LBS/CU. FT.
ATTRIBUTES MECHANICAL COMPONENT
ELEMENTS PRESENT .. AL, MG
COMPOSITION
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 4.00
DAILY RATE 0.00
BATCH SIZE 4.00
RECLAMATION ACTION .. REPAIR ONBOARD

*** WASTE ITEM NO. 7 POLAROID PRINT FIXER

STATE SOLID
DENSITY 20.00 LBS/CU. FT.
ATTRIBUTES PLASTIC CONTAINER WITH SPONGE ATTACHED
ELEMENTS PRESENT ..
COMPOSITION PLASTIC, ACETATE,
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 8.30
DAILY RATE 0.03
BATCH SIZE 0.03
RECLAMATION ACTION .. REFILL

S/C SUBSYSTEM EARTH RESOURCES AND METEOROLOGY

GROUP KEY 3.7.1

** EQUIPMENT/EXPERIMENT NO. 4 METEOROLOGY EXPERIMENTS

ASSOCIATED FPE NUMBER ... 5.11

S/C AREAS EARTH OBSERVATION LABORATORY

*** WASTE SOURCE NO. 1 METEOROLOGY EXPERIMENTS

DOCUMENT NO. 3.7.1.4.1

REFERENCE NO. 1 .. EXPERIMENTAL PROGRAM FOR EXTENDED EARTH
ORBITAL MISSIONS, REV. 1, SEPT. 1, 1969 TO THE
EXPERIMENT PROGRAM FOR MANNED ORBITAL
WORKSHOPS, AUG. 14, 1968, PAYLOADS DIRECTORATE

REFERENCE NO. 2 .. CANDIDATE EXPERIMENT PROGRAM FOR MANNED
SPACE STATION, NASA, REVISED BY CONVAIR
DIVISION OF GENERAL DYNAMICS, AUGUST 1969.

REFERENCE NO. 3 .. SENSORS POSE EARTH SATELLITE CHALLENGE,
AVIATION WEEK AND SPACE TECHNOLOGY, JUNE
22, 1970, PP 124-130.

*** ** WASTE ITEM NO. 1 POLAROID PRINT
STATE SOLID
DENSITY 60.00 LBS/CU. FT.
ATTRIBUTES PHOTO STOCK
ELEMENTS PRESENT ..
COMPOSITION PAPER, CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 19.00
DAILY RATE 0.06
BATCH SIZE 0.01
RECLAMATION ACTION .. N/R

*** ** WASTE ITEM NO. 2 POLAROID FILM PKG.
STATE SOLID
DENSITY 20.00 LBS/CU. FT.
ATTRIBUTES MULTILAYER PAPER
ELEMENTS PRESENT .. AL
COMPOSITION PAPER
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 92.00
DAILY RATE 0.31
BATCH SIZE 0.03
RECLAMATION ACTION .. N/R

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RUN NO. ** 2 **

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S/C SUBSYSTEM EARTH RESOURCES AND METEOROLOGY
GROUP KEY 3.7.1

** EQUIPMENT/EXPERIMENT NO. 4METEOROLOGY EXPERIMENTS

*** WASTE SOURCE NO. 1 METEOROLOGY EXPERIMENTS

***** WASTE ITEM NO. 3 MAGNETIC TAPE (ANALOG)

STATE SOLID

DENSITY 30.00 LBS/CU. FT.

ATTRIBUTES FILM END, STRIPS

ELEMENTS PRESENT ..

COMPOSITION ALKALI GEL, MYLAR

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.30

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. SPLICE

***** WASTE ITEM NO. 4 MAGNETIC TAPE (DIGITAL

STATE SOLID

DENSITY 30.00 LBS/CU. FT.

ATTRIBUTES FILM END, STRIPS

ELEMENTS PRESENT ..

COMPOSITION ALKALI GEL, MYLAR

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.30

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. SPLICE

***** WASTE ITEM NO. 5 FAILED MAGAZINE

STATE SOLID

DENSITY 30.00 LBS/CU. FT.

ATTRIBUTES MECH. COMPONENTS

ELEMENTS PRESENT .. AL, MG

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 4.00

DAILY RATE 0.00

BATCH SIZE 4.00

RECLAMATION ACTION .. REPAIR ONBOARD

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM EARTH RESOURCES AND METEOROLOGY
GROUP KEY 3.7.1

** EQUIPMENT/EXPERIMENT NO. 4 METEOROLOGY EXPERIMENTS

**** WASTE SOURCE NO. 1 METEOROLOGY EXPERIMENTS

**** ** WASTE ITEM NO. 6 FAILED CRYOGENIC COMPRESSOR

STATE SOLID

DENSITY 40.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. FE, AL, C

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 12.00

DAILY RATE 0.00

BATCH SIZE 12.00

RECLAMATION ACTION .. REPAIR

**** ** WASTE ITEM NO. 7 MAGNETIC TAPE (VOICE)

STATE SOLID

DENSITY 30.00 LBS/CU. FT.

ATTRIBUTES FILM END, STRIP

ELEMENTS PRESENT ..

COMPOSITION MYLAR

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.30

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. SPLICE

S/C SUBSYSTEM EARTH RESOURCES AND METEOROLOGY
GROUP KEY 3.7.1

** EQUIPMENT/EXPERIMENT NO. 5 OCEANOGRAPHY EXPERIMENTS

ASSOCIATED FPE NUMBER ... 5.11

S/C AREAS EARTH OBSERVATION LABORATORY

**** WASTE SOURCE NO. 1 OCEANOGRAPHY EXPERIMENTS

DOCUMENT NO. 3.7.1.5.1*

REFERENCE NO. 1 .. EXPERIMENTAL PROGRAM FOR EXTENDED EARTH
ORBITAL MISSIONS, REV. 1, SEPT. 1, 1969 TO THE
EXPERIMENT PROGRAM FOR MANNED ORBITAL
WORK SHOPS, AUG. 14, 1968, PAYLOADS DIRECTOR

REFERENCE NO. 2 .. CANDIDATE EXPERIMENT PROGRAM FOR MANNED
SPACE STATIONS, NASA, REVISED BY CONVAIR
DIVISION OF GENERAL DYNAMICS, AUGUST 19
69.

REFERENCE NO. 3 .. SENSORS POSE EARTH SATELLITE CHALLENGE,
AVIATION WEEK AND SPACE TECHNOLOGY, JUNE
22, 1970, PP 124-130.

***** WASTE ITEM NO. 1 POLAROID PRINT

STATE SOLID

DENSITY 60.00 LBS/CU. FT.

ATTRIBUTES PHOTO STOCK

ELEMENTS PRESENT ..

COMPOSITION PAPER, CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 19.00

DAILY RATE 0.06

BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 POLAROID FILM PACK

STATE SOLID

DENSITY 20.00 LBS/CU. FT.

ATTRIBUTES MULTILAYER PAPER

ELEMENTS PRESENT .. AL

COMPOSITION PAPER, ALKALI GEL

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 92.00

DAILY RATE 0.31

BATCH SIZE 0.03

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

S/C SUBSYSTEM EARTH RESOURCES AND METEOROLOGY
GROUP KEY 3.7.1

** EQUIPMENT/EXPERIMENT NO. 5 OCEANOGRAPHY EXPERIMENTS

*** WASTE SOURCE NO. 1 OCEANOGRAPHY EXPERIMENTS

***** WASTE ITEM NO. 3 FAILED MAGAZINE

STATE SOLID

DENSITY 30.00 LBS/CU. FT.

ATTRIBUTES MECHANICAL

ELEMENTS PRESENT .. AL, MG

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 4.00

DAILY RATE 0.00

BATCH SIZE 4.00

RECLAMATION ACTION .. REPAIR ONBOARD

***** WASTE ITEM NO. 4 MAGNETIC TAPE (DIGITAL)

STATE SOLID

DENSITY 30.00 LBS/CU. FT.

ATTRIBUTES FILM END

ELEMENTS PRESENT ..

COMPOSITION MYLAR

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.30

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. SPLICE

***** WASTE ITEM NO. 5 MAGNETIC TAPE (ANALOG)

STATE SOLID

DENSITY 30.00 LBS/CU. FT.

ATTRIBUTES FILM END, STRIPS

ELEMENTS PRESENT ..

COMPOSITION MYLAR

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.30

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. SPLICE

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RUN NO. ** 2 **

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S/C SUBSYSTEM EARTH RESOURCES AND METEOROLOGY
GROUP KEY 3.7.1

** EQUIPMENT/EXPERIMENT NO. 5 OCEANOGRAPHY EXPERIMENTS

*** WASTE SOURCE NO. 1 OCEANOGRAPHY EXPERIMENTS

***** WASTE ITEM NO. 6 MAGNETIC TAPE (VOICE)

STATE SOLID

DENSITY 30.00 LBS/CU. FT.

ATTRIBUTES FILM END, STRIPS

ELEMENTS PRESENT ..

COMPOSITION MYLAR

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 0.30

DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. SPLICE

** MANNED SPACECRAFT WASTE GENERATION DATA **

ADVANCED TECHNOLOGY AND ENGINEERING OPERATIONS

LUNAR AND INTERPLANETARY MISSION SUPPORT

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S/C SUBSYSTEM LUNAR MISSIONS

GROUP KEY 3.9.1

BASIC FUNCTION PERFORM MISSION TASKS

FUNCTIONAL REQUIREMENT LUNAR AND INTERPLANETARY MISSION
SUPPORT

** EQUIPMENT/EXPERIMENT NO. 1 ASTRONOMICAL INVESTIGATIONS

ASSOCIATED FPE NUMBER ...

S/C AREAS LABORATORY
STORAGE

*** WASTE SOURCE NO. 1 ASTRONOMICAL INVESTIGATIONS

DOCUMENT NO. 3.9.1.1.1*

REFERENCE NO. 1 .. LOGISTICS IMPLICATIONS OF AN ASTRONOMICAL
OBSERVATORY ON THE MOON, RAND CORP., M
EMO #RM 4916-PR FEB. 1966.

** MANNED SPACECRAFT WASTE GENERATION DATA **

11/30/70

RUN NO. ** 2 **

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S/C SUBSYSTEM LUNAR MISSIONS

GROUP KEY 3.9.1

** EQUIPMENT/EXPERIMENT NO. 2 GEOLOGICAL EXPLORATIONS

ASSOCIATED FPE NUMBER ...

S/C AREAS LABORATORY

STORAGE

*** WASTE SOURCE NO. 1 GEOLOGICAL EXPLORATIONS

DOCUMENT NO. 3.9.1.2.1*

REFERENCE NO. 1 .. PROCEEDINGS OF THE WORKING GROUP ON EXTRATERRESTRIAL RESOURCES, 4TH ANNUAL MEETING U.S.A.F.A. COLO. 1965.

MILITARY SCIENCES STUDIES/TASKS

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